

April 1878

26th

Cloudy disagreeable day
snowing lightly all the
P.M. - Temperature up to 38
in the forenoon. About
11 A.M. we were agreeably surprised
to see a solitary goose
flying by from the North East.
It was Branta hutchinsii and
the first of the migratory
to appear this year.
In the afternoon a single goose
was seen returning on
the course taken by the one
in the morning and was
probably the same bird.
The arrival of this goose was
very unexpected as not
a pond is open and the
tundra is covered with

nearly its entire winter
coating, only spots showing
here and there -

The natives report that
a few geese have been
seen about Unalakleet
within a few days -

All the residents here
say that it is a very unusual
occurrence to see geese here
until some days after gulls
have been seen flying over
but the chances are about
equal this year since the
ice extends in an unbroken
sheet out 15 or 20 miles,
at least, from shore and probably
farther. A ♂ grouse (*Lag. albus*)
was heard on the hill side back
of the Redoubt during the

afternoon Hurting defiance
at all rivals -

Have nearly completed packing
the specimens collected during
the last year -

27th

Some natives from Stebrusson
the other side of the island
say that several geese have
been seen there -

28th

Egorka brought in the
first goose killed this season
He shot it as it flew over the
Village -

An old woman from the
station across the bay on
the Mainland reports
that 8 or 10 ducks and several
swans were seen yesterday

flying about here.

Dy. 30 to 79/101

Weather remained cold.
Nothing of note -

May 1st

Made a trip to the
mainland saw 4
swans and *Stans
acuta*

May 8th & 14th a fearful
wind storm accompanied
by snow ended by the
temperature falling to
90 the a.m. of the
5th

In the evening a native
brought me a specimen
of *Eremophila cornuta*
the first specimen of
this bird obtained here

6th

Cold - nothing of note -
7th

Cold and clear.

Began boiling the bones of my
beluga - Some women came
from the bars today and
said they saw some geese and
cranes -

8th

Still cold. The country is
covered with about 18 inches
to 3 feet of snow and looks
anything but spring like
though one can read without
a lamp from 2.30 a.m. to
9.30 P.M. and there are
not over ~~four~~ hours of
darkness - The redpoll
linnets are numerous

And their cheerful canary
like chirp is heard from
all about among the weed
patches—

Just after noon a gyrfalcon
passed over and later a
Pigeon Hawk—

9th

The beautiful sunny days
continue, the snow is
slowly disappearing and
spring appears to be here at
last.

10th

Fine day, went to shaman
Mf. shooting obtained 5
Saw a number of interesting
birds in the alder thicket
there. A fine mirage was
observed to the north—

A cape about 60 to 80 miles
distant was drawn out
into a church-steeple like
elevation with a second
lower point which
increased the resemblance.
Open water was seen,
with the gosses, off Egg Is.

The garden was dug over
and repaired today. The
setts which we raise in
the house are just coming
above ground.

11th

Beautiful day, signalled by
the arrival of quite a
number of birds.

The ice is covered with
water formed under the
snow and dark spots

commence showing when
the water approaches the
surface of the snow
Large spots on the
tundra are bare and geese
+ ^{ducks} are commencing to arrive
in small flocks.
12th

Warm pleasant, Two Russians
returned from shooting up
the canal, this A.M. they
report no lakes open and
but few geese which do
not light.

Ducks geese & gulls
are seen sparingly flying
over the ice and a few snipe.
The ground is frozen so
deep that as soon as the
sun gets near the horizon

ice forms on the pools
of water and small streams
though 10 feet from the ground
the thermometer indicates
 6° or 8° above freezing

The sun does not
counterbalance the effect
of the cold in the ground so
to let the streams running
until nearly midday and
they sensibly diminish by
 6° or 7° in the evening.
It is dark now from about
 $10:40^{PM}$ to $1:20^{AM}$.

Waukhuie are becoming
more plentiful

13th

Warm & pleasant -

The tundra is bare to a
great extent -

Went to Shaman Mt. in
the afternoon. Found the lakes
open around the base of the
hill and small sandpipers
(*S. pusillus*) very numerous -
only a pair of geese
were seen -

14th

Blond August 27 (18)

1878

27

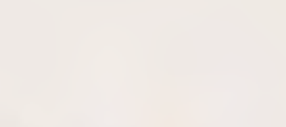
Alexis - Nosuauk
" wife Chamaukhu

Chai Kan -
Aniak - May -

1877

Harry

E. W. 77



Qumak, ka May 26. I
Went out in the afternoon
in a 3 holed bidarkie for
the first time. I can testify
to the pleasure one has
in ~~sailing~~ ^{riding} gliding ^{rapidly} along
through the water. It is
~~in~~ the water in one of
these boats which although
so frail that in passing
over keep below the frame
work and skin can be
felt quivering to the long
leaves as they glide we pass
over and the long swell
bend the boat from stem to
stern yet so elastic and
strong are they that it
requires a ~~strong~~ heavy
sea to deter the happy
natives from going
about in them ^{rather} or in the
still smaller ^{two}
holed bidarkies. With a man
in front and three to paddle

I went out through
the pass into Captain
Harbor on the way several
Marbled Guillemots were
shot and quite a number
were seen during the trip.
Uria columba was common
as usual. Also the Cormorant.
As we went through the
inner Harbor several
Horned Puffins were seen and
one was shot as it arose
heavily from the water but
as it was not killed it dove
and an exciting chase took
place which ended after
the use of considerable shot
in the capture of the bird.
One or two others were wounded
but managed to escape.
As did several "Arctic" only
one being secured and that
after being shot several times.
This and the Puffins
generally keep in the pass

out away from the
harbor but the storm
which has been raging
outside several days
has driven them in.
A large flock of Somateria
V-nigra (?) was seen after
my ammunition was
exhausted. Quite a number
of Gulls with black wing
tips were seen but not
identified. As I pulled the
trigger on an Arct. a few
feet in advance of the boat
the native in the front had
raised his paddle just in
time to have a hole put
through the blade by the
charge of shot.
On my return I was told
that a half dozen large
snipe had been brought
in and sent to the kitchen
during my absence. I
at once went to the

... but found only
one that had not been
picked. This I at once
appropriated and found it
a fine specimen of
Larus uropygialis. The
feather still remaining
on the others showed that
some were in summer
plumage while others were
still in the light colored winter
plumage.

Sunday May 27 - 1877
A stormy day.

When we awoke we found
the Sch. Bella back from
a weeks trip to the westward,
and about 10 A.M. the
Ste. St. Paul came in
from her trip to the seal
Is after a trip of just
two weeks. She reports
no ice about the Is.
Capt. Chas. ...
board en route to San F.

Having been introduced as American
officer at the seal Is. by Mr.
Marlow.

Monday May 28

The cargo for St. Michaels
was unloaded and I attended
to securing my collecting
apparatus. Found everything
in good condition.

Tuesday May 29/77
Looked over the birds I
had on hand and arranged
my working material.

Wednesday May 30/77

The steamer left for
Nanaimo for coal at 4 P.M.
and shortly after the Bella
started for the Kuskokwim
with Mr. Simpson the light-
for that district and Mr.
Neumann who goes
overland to St. Michaels.
A fine lot of fishes were

obtained from the natives
and a curious Ray was caught
on the steamer while she
lay at anchor and sent to
me. There were among the other
fishes some brilliantly red
banded fishes perhaps a *Sebastes*,
the ♀ of which are much
duller colored. A single ♀ of a
second species of the same genus
was among them. Also some pretty
purple spotted sculpins which
are said to frequent the same
localities as the former species.
on rocky points

Thursday May 31/77
Took descriptions of the
fishes secured yesterday
made a sketch of the Ray and
saved as many of the fishes as
possible with my limited
amount of alcohol. I also
went across to Amaknak
Is. and visited the caves
where Mr. Dall found

His pre-historic relics a year
or two ago. The top of the
cave in the isolated rock
had partly fallen in covering
the bottom in one place several
feet deep with debris.
Friday June 1/77
Spent nearly the entire day
moulding bullets and
trying my Maynard rifle.
I find its penetration is very
great and that it shoots
satisfactorily at long ranges
and with practice I think I
can do good work with it.
Mr. Newman the A.C. Co. agt
at Chernoyskie tells me
of several caves near
his village where there
are a lot of mummies and
various utensils and implements.
I have partly made arrangements
to go over and if everything is
favorable shall probably go the
first of the coming week.

A mormon cutter this
came in and
anchored just at dark.

Saturday June 2/1877
Crossed the harbor to Aniakchak Is.
with 'vivian' the forester saw
in the morning, to dig into
some house sites & found
a few days since. On the
way over a swallow (~~at~~ house
home) was seen skimming
a boat. At the ancient
village site the houses were
scattered about irregularly and
and was nearly all small
squares with ~~a few~~ as shown
by the outline of the depression
that marked the places of
the houses. In the center of
the village was is a large
shallow depression much larger
than the sun surrounding

pits, with a porch ^{across} the
center and a communicating
door would be seen by the
low bank of earth. The
village site ~~was~~ is as follows

Digging into several of the mounds
houses we found nothing but
the bones of fishes (sculpin, cod)
sea lion, whale, and other
water birds. In one house
there was ^{about} nearly two feet deep
of fish bones in one corner.
The jaw bones of a whale had
been used for a side support
for the house and was sunk
about 4 ft into the ground.
Clay mussel, Porcupine, and the

common rough shelled clam,
 shells were found in profusion
 in all the houses examined.
 No articles of value were
 found in any of the houses
 until we reached the large
 square house where digging a few
 inches I brought to light a large
 pile of fish bones, several sea lion
 bones and a number of whale
 vertebrae. In this pile of
 refuse I found a ^{broken} stone lamp
 and the fragment of a steatite which
 had probably been thrown there
 to get them out of the way.

In other parts of this quarter but few
 remains of fish etc were found
 But in the corner of the inner
 room next the door where the
 lamps were found I took out
 a flint spear head and two long spear
 heads also a wedge made of whale
 bone. The chief here knew the latter
 at once and said to go to the
 station had iron to make them

wedges of different sizes to split
 wood into planks for making
 sleds and also for making
 He had a native make me a couple
 out of whales jaw bone and they
 are precisely the shape of the iron
 wedges used by the west cutters.





The preceding
figures give
a ~~rough~~ ^{rough} idea of
the appearance
of the specimens

taken. This village is in close
proximity to the caves in which
Mr. Dall found so many skeletons
and I suspect that these caves
were the burying places for this
town. A well worn path
skirted the bluff leading from
this village toward Oumacka
and another less marked
lead toward the caves.

The earth has nearly obliterated
several of the house sites but
only about 6 in. of mold
covered the remains in the
large house. On my return
to town I specimens of *Lanius*
verreauxi ~~was~~ ^{was} seen on the track
and in the afternoon the Chief
(Rafu) took my gun and went
over to the caves. He shot at 75'

me.

Sunday June 3 1877

Nothing stirring. Made the acquaintance
of the officers to visit the museum.
Cutler and took a stroll
along the track. Saw some
half dozen swallows in the
afternoon and quite a
number of Rock Thrush
were seen in a small
stream flowing into the small
lake back of town.

Monday June 4 1877

Did nothing in collecting during
the morning. In the afternoon
went along the track under
some cliffs near town in
search of a *Lysfalcone* nest
which the Chief told me
had seen them for several
seasons. Did not find it
but secured a pair of *Thalassidroma*
insignis saw the usual number

of Savanna Sparrow.
A Gyrfalcon was hovering
over the bluff in the rear
of the town at noon but
disappeared in a short time.
Saw the burrows of some small
mice on a flat near the town.

Tuesday - June 5, 1877 -
Went out just before noon
in a 3-holed bidarkie - alone.
Although my first trip in a
bidarkie alone I found no
difficulty in keeping my perpendicularity
and went several miles to the
head of Captain's Harbor.
Saw a lot of Steller Eiders but
they proved to shy for me to get
any. Also saw a lot of ~~them~~
Hutchinson ducks in a flock
at the head of the harbor. They
exhibited their usual wildness -
A pair of fish ducks (Mergansers)
which appeared to be Mergansers
flew from a small bay so

I entered -
Some small porpoises
come into the harbor every
evening to feed ~~into~~ on the
fish in shallow water.
They roll up on the surface
every few feet while fishing
but only show their dorsal
fin & a small portion of
the back.

Eagles are very common
but over all the White-headed
species.

The Sch. Gen. Miller arrived
in the p.m. from the Western
Is. Mr. Grunbaum brought
me a specimen of the Chocchee
which he said were in the
greatest abundance about

Kyska and other of the Western
Aleutian Is. I have seen
none about Unalakleet yet.
Mr. Newman of St. Petersburg
tells me he has a skin
of a ~~prudent~~ ~~thick~~ Seal which

from his description must be
a Phoca

Wednesday June 6, 1877
In the morning I learned that
Mr. John W. Mallon was to take
in the St. Michaels Cargo and
proceed to that place at once
so I went at work getting
my specimens packed and
things in readiness to start
the coming Saturday.
I trimmed the sides on hand
and packed the most of my
material.

Thursday, June 7, 1897
Continued yesterday's work.
Found that the large birds
I had collected soon after my
arrival had not cured out a
little so had to pack them
to take with me. Find that
I have secured quite a
valuable lot of ethnological
specimens & a very contribution

Ref. Collector
on the collections of Col. Wood
and Messrs. Graham and
Armstrong to the A.C.C.

Friday, June 8, 1897.
Finished my preparations
for departure and skinned
a specimen of Halibut that
the Chief Joe brought in.
Some young salmon about
3 inches long were brought
me from the creek near town.
They were light silvery bluish
with dark ^{vertical} bars along the
sides.

Sat. June 9, 1877.
A dead calm until about
9 A.M. The tide was very
low and from the deck of
the schooner alongside the
wharf many sponges, echin-
odermites, ^{the} star ^{fish} ~~Porogadus~~
and some ^{silly white} ~~the~~ sea anemones
with long stalks were fastened
along the upright sides of the
wharf.

Several small porpoises were playing about in the harbor about the time we cast off (10 a.m.).

As we swung off a "school" of herring passed under the stern of the boat their silvery sides flashing here and there from the dark water as they reflected the rays of the sun in burning and darting through the water. The wind was very light and we passed through the pass in front of town very slowly. Mr. Wood coming out to give a salute from his residence.

Mr. and Mrs. Armstrong and passengers on the boat going up on a pleasure trip.

Sunday June 10, '77.

The wind continued very light with a high barometer. We were within sight of Roundabout Is.

at sunset. Lomvia Anna is common, all flying north toward the seal islands.

Monday, June 11, 1877.

The same semi-calm continues. A Hump-back whale came close alongside in the morning and I gave it a fall from my "Maynard" without appearing to produce the slightest impression. Quite a number of fur seals were seen during the day, playing about the vessel. Now rising to take a good look at us and again leaping playfully from the waves as they sported with each other.

Several whales were seen during the day.

Tuesday June 12, 1877.

The wind freshened slightly toward night fall. A single Albatross was seen in the morning and a great many Larries were seen flying toward the seal is-

...by millions.
The mate told me that
~~Admiral~~ about 12 o'clock last
evening a large White owl
came aboard and remained
perching upon the mast
until about 4 A.M. when it took
its leave.

Wednesday June 18, 1877.
The wind fell again today. We
sailed near the Seal Is. early
this morning. The "arnies" were
very abundant all about
in much larger numbers
than before. During the day
quite a number of gulls
were seen all that came
near enough had black wing tips
and were the same species
as noted but not taken at
Unalakleet. A pair of very
small dark colored Petrels were
seen in the morning & white
Noddy (Rodgers Fulmar).

about the size of Bonaparte's
Gull followed us toward evening
and several "Choochie's" and
a pair of another species of
small dark were noted.
The gulls were flying toward the
main land. The present
~~time~~ is probably the time for
migration of the Arnies and
several other sea birds.

While at Unalakleet I noticed
that on calm evenings
the water appeared to be alive
with myriads of small jelly
fishes which gave out flashes
of phosphorescent light at short
intervals and gave much the
same appearance as the
same number of fireflies
in the grass on a summer
evening.
Before the snow line had
receded very considerably and
several species of wild flowers

were in bloom and sheltered
spots on the hillsides
were becoming green.

Thursday June 14 1877

Off Kurewak Is - Schott's Miller -
The fair, warm weather continues
with but slight breeze. Made
only 19 miles in the forenoon & 8
in the afternoon. We
had almost a calm, making but
little progress. The weather is as fine as could be
wished but no wind.

A life on the Ocean - Wave is becoming
slipshod in the extreme only on the
sailing vessel. I am now gone the
sea sickness which I suffered on the
steamer.

Friday June 15, 1877 -

Made but 12 miles since yesterday
noon. A few "Arctic" are
seen at times and a species
of Oceanidroma comes about
the boat at noon & then.

Saturday June 16, 1877 -

Still making slow progress.
The ^{night} last few days has been as
warm and pleasant as though
we were in Californian water
and I am not sure but warmer
as we could sit on deck without
overcoats or wraps.

Foggy in the morning but cleared
just after noon.

A number of small flocks
of snipe were seen during
the day and quite a number of
ducks before mentioned.

(Rissa trid. - La Yar. kotybur?)

Warm & pleasant in the evening but
a fog bank along the northern horizon
indicates ice. Some Eider ducks were
seen in the evening.

Sunday June 17, 1877.

Off St. Lawrence Island. Raining sea.
Was aroused at 12:30 A.M. by hearing the
captain give repeated orders to change the
course of the vessel. Went on deck and
found to my surprise that it was

just enough to see the horizon
and in the distance some snow-
capped loomed one end of St. Lawrence Is.
Surrounding us on every hand ~~was~~
were large fragments of ice which were
drifting rapidly southward. The
washing of the waves on the ice
made a constant ~~low~~ sullen roar
which, combined with the lowering
sky where heavy masses of cumulus
and cumulo-stratus ~~was~~ ~~were~~
~~was~~ drifting ~~by~~ up from the
horizon and gave warning of approaching
rain; and the peculiar light of an
~~arctic~~ ~~polar~~ summer night gave the
scene a strikingly sinister aspect.
Soon the horizon to the N. lighted up
and changed from green to purple then
a flush of crimson touched the edges
of the clouds and changed the water
from a muddy green to molten
copper. And as the sun approached
the horizon the colors changed and
shifted until the whole sky in
the N. was one beautiful mass

of color in the form of an aureole
in which the outer portion was
faint crimson which became intensified
toward the center while outlying masses
of clouds took on changing shades
of gold which changed to yellow
and then to copper and back
to gray as the sun came above the waves
and changed them from copper to
gold. The scene was rendered still
more impressive by the masses
of ice which showed shades of green and
blue their tops borders colored as they
were touched by the rays of the sun
while their fantastic shapes took
new forms under the influence of the
golden alchemist which seemed to
delight in dispensing beautiful colors
with a lavish hand. The sun soon
entered the clouds and a twilight took
the place of the usual light of day until
about 6 A.M. when the light became clear.
About sunrise 1:30 A.M. there were a
great many Crested Auk (Phalacrocorax
auratus) in the water among the ice.

They were in small flocks.
A number of Kittiwake gulls were
also about, also a few specimens of
Uria columba and of *Uria a. r.*
I also noted some other small rats
and guillemots and some eiders
but was unable to identify them.
About 10 A.M. three Emperor geese
flew by the ship heading for St. Lawrence Is.
And in the evening two specimens of
Tringa ~~*semipalmata*~~ ^{*semipalmata*} came flying about
the boat. The first ice belt was passed
between 12 M. & 5 A.M. About 10 A.M.
Another belt was sighted and passed during
the afternoon. Another schooner was
sighted standing in the same course with us.
Lost sight of St. Lawrence in the afternoon.
At 7 P.M. we are nearly incalmed with
a heavy swell, a light rain set in and
an ice belt lies to the eastward.
All day yesterday we were passing
fragments of driftwood from
the Yukon and pieces of grasses
rushes &c. were almost all the
time in sight.

The water was ~~stirred~~ tinged with a
muddy hue which became more
decided today although we are about
20 miles from the mouth of the
river. ^{*Tringa* ~~*semipalmata*~~ *semipalmata*}
One of the large white Fulmars
seen in the morning, and
as was common in Akutan Pass
of Alaska Is.

Off Mouth of the Yukon June
18 1877. Sighted Cape Barby
and Stewart's Island before
noon but made but little
progress. Dead calm in the afternoon
and we drifted rapidly to the south.
Did some dredging and secured
several Radiates and crustaceans
in 24 fathoms about 75
miles off shore.

Off Stewart Island, June 19 1877
In the morning found we
were off Pictou and in sight
of the mouth of the Yukon

Stood to the northward and
ran in to St. Michael's in the
afternoon. On the preceding
evening a great many ♂ of
somateria I-nigra were seen.
As soon as we anchored the whale
boat came alongside with the
entire white population of the
place including a number
of traders from up the interior.
The appearance of the place was
very inviting the day being
very pleasant and the green
hills formed a fine background to the
Redoubt and the Indian village
on the opposite point with the
white tents of the traders, scattered
along the shore.

Landed in the evening and examined
my future quarters. They are
better than I expected.

St. Michael's - June 20, 1877.
The Schooner was discharging
cargo and I did nothing but
keep on the lookout for my various

boxes &c. - Quite a number of
sidarras were passing back and forth
to the main land about three miles
distant.

One sidarra came alongside from
a trading trip. It was loaded to
the top with furs, fogs, women and
children and a few men.

They had many ~~wooden~~ kantags on board
some of them were small and
used for urinary vessels as I
had opportunity to observe.

The Indians had some furs to
trade and were very anxious to get cartridges
for Henry rifles with which they are
well supplied.

In the evening in company with
Mr. Loomer and Mr. Armstrong I visited
the Indian village near the fort.

St. Michael's, June 21, 1877
Went up the Canal shooting
with Mr. Armstrong in the A.M.
found Aleutian Terns very common
on an island within sight of

the Fort. As we saw also *Alerna micromma*
S. V. nigra is quite common but shy.
Colymbus pacificus is plentiful
in the Canal but difficult to shoot.

We had gone but a short distance
up the Canal when the steamer
from the upper Yukon with four
cargoes and bidarra came in

laden with furs collected
during the preceding winter by
the A.C. Co's traders. It soon came
along side and we went aboard
and came back to the village.

In the evening ^{Mr. Turner} went to the Indian
village and traded for some ivory
dolls and small parkies.

St. Michael's June 22 1877

Kept about the fort today.

There are a large number of
esquimaux dogs about the
place whose main occupation
seems to be that of fighting.

They have made a lot of
burrows on the hill in

front of the Fort where they
live during the heat of the day
but in the evening they unite
in parties of a half dozen
or so and go on the war path
for any stray canine
strangers which they may
come across.

The weaker party soon gives
vent to his feelings in doleful
howls which generally bring
someone to the rescue with
a heavy raw-hide whip which
soon disentangles the struggling
mass of snarling fur.
If no one is about these raids
often result in the death of the
dog attacked.

They also have terrific battle
among themselves, two usually
starting the fracas which the
others join.

June 23 1877-

Went out back of the fort with Mr. Sumner in the evening. Saw plenty of Lap. long ~~spans~~ in breeding plumage and a pair of Golden Plover which were evidently breeding on the Tundra. A Stercorarius parasiticus flew by and was badly wounded & fell a short distance off. While going after it a ♀ Somatania ~~sp. nigr.~~ ^{v-nigra} flew from a nest of 5 eggs close by - she was afterwards secured. We also saw quite a number of Budytes flava.

The birds nest was composed of a fine down lying to a slight depression in the moss.

June 24 1877-

Stayed aboard the Redoubt - nothing of importance occurred until

~~June 25 1877~~

June 23 continued

In the evening a meeting of the white population of the Redoubt and of the opposite shore was called on board the Gen. Miller to consider the propriety of sending a man by the name of Kunggan who shot a Mr. Boyle at Kluwakoff on the Kuskokwim the 25th of March 1877. ~~He was shot~~ down to Unalakleet to be handed over to the Capt. of the Revenue Cutter "Richard Rush" (Capt. Bailey, to be taken to San Francisco for trial. An interview was held with some relations of Kunggan one Sayie and Ugh-na-pinghuk a noted trader and rascal who is feared both by whites and natives. They are all Mahlemuts. The latter expressed his disapproval of the proposed measure and somewhat

could the whites who then
proposed to adjourn until
the next morning to meet again
and settle the affair.

About 9 a.m.

June 24 1877 -
A second meeting was held
on the Schooner and
we at once resolved to
send the man down and
a paper was drawn up by
Mr. Turner myself requesting
the Marine cutter to make
this place a visit in order to
overhaul the natives who are
becoming slightly unruly and
are causing a fear of some
serious results arising from
their violence.

Some of the more mischievous
were for shooting the man
at once while the others insisted
sending him away.

When he was captured on the
schooner the man was

resistance but said kill me
but don't hurt my brother.
The cause of this will be mentioned
below. The cause of the murder
was as follows: Kuningan

was employed about the house of
Mr. ^{John} Clark, a near neighbor of
Mr. Boyles, during the winter but
stealing a quantity of furs from
his employer he was discharged
upon suspicion. As he had
sold Mr. Clark a portion of the
furs he feared detection from
that quarter and so after
vainly endeavoring to persuade
his brother, a boy, who was living
with Mr. Clark to kill Mr. B.
he loaded his musket and
going to B.'s house in the afternoon
shot Mr. B. in the back of the head
as he sat writing, killing him
instantly. The ball then buried
itself in the wall. Kuningan
wrote a piece of paper and then
pasted it over the bullet hole

in the wall and returned
to Mr. Clarke's place at Kuluahog
a half mile or more, by a
circuitous route which was
afterward trailed. The body was
discovered the next a.m. when
Kunigun said that his brother
shot Mr. B. during a quarrel in
which B. threatened to kill the
boy. Kunigun was sent to St.
Michael by Mr. Clarke with a letter
in which his brother was supposed
to be the murderer. Afterwards
Mr. C. sent a second letter
stating the true state of affairs.
Kunigun's brother also came
to St. Michael and they both
remained in the vicinity until
the surgeon of R. When R. was
put into the boat to be taken
on board the vessel he said kill
me but don't hurt my brother.
When the hand cuffs were put
on him he became frightened
and turned a sickly yellowish

showing evidence of fear.
When he was searched he ~~wanted~~
wished them to throw his
knives over board.

July 24 - 1877 -

The schooner left yesterday
noon -

Kept about the port the
entire day -

July 25 1877

The steamer Yukon went to
Stewart's Is. for wood. I
went also and spent a few
hours collecting on the island
shot 3 White-fronted Geese and
obtained a number of their young.
The Harlequin ducks were nesting quite
commonly on the Is. some nest
was found - It was a very
slight structure, of grass
a few feathers. Quite a number
of Som. V-nigra ~~and S. of. etc.~~
were seen on it & of the former

was obtained. Some Phalaropus
fulicarius and limosa uropygialis
were seen also Gysfaterculus.
Several Pintail Ducks and
Larus macrorhynchus.

A curious scoter was obtained
♂ & ♀ They were about the size of
Oedemia americana with a
large triangular white patch on
the occiput. The rest of the
plumage black in ♂. The feet
were black with dark reddish
orange showing on webs & along
angles joints & scutellae.

The bill black with two large
dusky orange spots on sides of
upper mandible, just in advance
of nostrils & slightly connected.
We went around the northern end
of the Is.

June 26 - 1877 -
The wind proving too strong
we were obliged to return
by way of the Canal -
Stopped near the mouth for

some more wood and
I improved the opportunity to
do some shooting.

Had the good fortune to secure
5 fine specimens of Sabine's Gulls.
They were feeding about the
numerous small pools on the
tundra although it was only
1.30 A.M. Their movements are
much like those of Bonaparte's Gull
except that they rarely plunge
into the water but pick
their food from the surface often
slighting for an instant.

A number of Gysfatercula
were seen but not obtained
although not very shy.
They walk about feeding and
when alarmed start to walk away
from the spot & the is suspicious
uttering a note like ki-kurrrr
made by rolling the tongue.

A Pacific Diver (Loon) was seen
from a small pool and not
getting under the ice.

fell ~~into~~ on the ground some
25 yards from a large pond.
It at once commenced jumping
along by raising itself by its wings
and springing forward with its feet
and made very quick time.

June 27 and 28 remained
about the Redoubt attending to
my specimens

June 29 1877
Went to the Island at the mouth
of the Canal after Salentia alutacea
Managed to get to the place and
found but few terns about the
place most of which were S. arctica
I found that Salentia was much
more shy than the former and
that it had no harsh cry like its
companion. Salentia could be
distinguished at quite a height by
its darker color & short tail.
Four specimens were obtained.
A large flock of male Somers.

V-nigrum were seen on
points of rocks but none
secured.

June 30 to July 3
Went, in the morning, with
the whale boat to Whale Is.,
off St. Michaels after Mormons.
Although quite common yet
I only secured 1 cirrhatum and
3 corniculata owing to poor
shooting. Saw a pair
of Mergus (seruator?) and
several cormorants.

July 1 to 3 - 1877
Attended to the specimens
on hand.

July 3 - 11
Started in the Whale Boat
with Mr. Turner for a trip
up the canal after Xemas.
Mr. Peterson one of the A.C.C.'s
traders started at the same
time we outstripped him and

had dry meaty when he arrived at the union of the two canals.

A nest of Pring americana with 4 fresh eggs was found here by an Indian.

We went on about 3 miles and camped for the night on Fox creek. I obtained two Xemas, 1 Equipeaux curlew & 1 white murred Godwit. Early the next morning we were awakened by the trader preparing to leave about 2 A.M. I soon after went on the tundra and shot a Xema and during the forenoon about a dozen others were obtained.

At noon I was taken ill and we returned to the Redoubt.

July 5 - 10 - 1877

Remained about the Redoubt doing one odd job and another.

July 11 - 1877 - Steamer Yukon ^{Silanus} left
Went up the canal in a 3-holed Redoubt with two Mahlemuts from Unalakleet, they proved very good men. On our way up I obtained a number of Xemas a few other birds. About 10 P.M. we tried to ~~camp~~ find a camping place but no fresh water could be found nor any dry ground, we being in the Crooked Canal. As it became later I became desperate and pitching the tent one man was sent after water and the other after wood. The water proved very nauseating but the men seemed to enjoy it when under the influence of a handful of tea. The next morning some more Xemas and some Jaegers, parus, buffoni & parus were obtained and one Lous. fischeri. The latter were quite common about the

poor but difficult to shoot.

July 12 returned to the Redoubt.

July 13 attended to the birds on this and the following day.

July 14, 1877

When we arose in the morning what was our astonishment to see the St. Paul lying at anchor off the Fort.

~~What on board~~ We soon learned that they had brought back Kungum as the Revenue Cutter refused to take him on insufficient evidence.

July 15

Made a visit to the steamer and helped Mr. Turner pack also packed some birds for myself. Sent two boxes of birds from here.

July 16, 1877 -

At noon the Revenue Cutter 'Richard Rush' came in and anchored. Went aboard after dinner and had a chat with the off. After in the evening a number of them came on shore.

July 17, 1877 -

Upon the case being represented to him, Capt. Bailey agreed to take Kungum a prisoner to San Francisco. The officers dined ashore and made me a call.

Mr. Doyle 1st Engineer aboard the cutter has several curious fishes which he has obtained about Bristol Bay for me.

July 18, 1877 -

The cutter left at 5 A.M. and at 11 P.M. we bade good bye to Mr. Turner, Mr. Clark

and the officers of the St. Paul and she stood out to sea, leaving us until next year.

July 19 - 1877.

Bishop Segher with an assistant who arrived on the St. Paul having made the necessary arrangements left in the afternoon for Ulukuk from whence he is to make a portage to Neelato to establish a mission.

July 20, 1877 -

Alexis, my Indian assistant who returned from Pitmehtalik River on the 18th, and who was coming off to the St. Paul in his bidarkie with a box of birds for Mr. Turner as we were returning to the shore, received a trading outfit to obtain ethnological specimens also some collecting materials and leaving his birds he started to return today.

July 21, 1877.

The young of Budytes flava are about ^{the same size as} in considerable numbers.

July 22 - 23 & 24 did various small jobs I had on hand.

July 25 - The Lapland Longspurs are changing plumage also Chondestes virginicus - ~~at~~ The young of Agrotherus linaria are about in abundance also those of Parascopus - and a few of Zonotrichia querula.

July 26 to 31 Nothing of importance done.

Many small birds about the Redoubt.

Obtained two or three Kennerly Warblers on the 30 & 31 of the month.

Salmon, Arctic Rasberras and Blueberries are ripe -

August 1st to 8th

Have kept about the
post owing to bad weather
but have obtained many
interesting birds including
8 more Kennicott's Warblers,
Yellow, Blackpoll, & Black
Cap Warblers Linn & parrot
just & so - Lurustone Co.

The young of the land birds
are now about preparing
for their migrations
Lurdus Alceus has also
been taken with several
Sturnus nor. borealis.

Aug. 9. 1877

My Bidarkie which
had engaged a native to
construct arrived day before
yesterday and was put in
train today.

We have commenced
lifting weights here for
amusement and exercise.
By getting some natives
to take hold we found to
our astonishment that
they could lift more
than we at first thought
our ambition becoming

found we lifted the same in
288 lbs in one hand.

A lamentable occurrence
took place at the rival
trading station on the
Main Land some nights ago.
owing to the brutality of two
white men, or rather brutes.
A native girl about 16 or 17
who had been married in
native fashion to their native
cook at the station ~~had~~ went
there to live a few days since
and a few nights after her
arrival a man named Hanson
and Canadian and John Johnson
or "Big John" a Norwegian
entered their tent and driving
her husband away proceeded to
rape her and she struggling to
prevent them Johnston knelt
with his knees upon her
chest and struck her some
seven blows with his knees
in the chest & side.

rupturing some blood vessels
in her lungs and causing
profuse hemorrhage.
She came here to be doctor'd
and gave us considerable
trouble but we finally
succeeded in checking
the blood.

Aug. 10, 1877 -
Went out to Whall Is in
my belarkie after 2 P.M.
obtained a few worms and
some specimens of larvae -
which were exceedingly
numerous there.
I also saw a single ~~golden~~
Wandering Tattler and
a ~~few~~ flock of some 20 or 30
specimens of *Linga ptilocnemis*
two of which were obtained.
Sterna macrura was also
very numerous, both adults
and young.

August 11, 1877.

A fine Cormorant was brought me yesterday and I made the attempt to make a water color sketch of it and succeeded beyond my hopes.

I then decided to color the bills & heads of all the water birds of interest I might see in N. And colored the bills of two species of ~~Long~~ mormon found here.

Aug. 12 '77

Strong wind from N. & E. all day passed the time in attending to specimens on hand.

Aug. 13, 1877 -

Wind still from the north - In the evening some native women brought me a lot of small fishes obtained in pools left by the low tide caused by the strong winds from the north.

Also obtained some curious crustaceans along the beach. Mr. Neumann & I walking along in search of specimens to the Indian village.

Aug. 14 -

Light wind from the N - My collector Alexis went up the canal collecting. In the afternoon the company's baggage returned.

from Unalakleet where it had
gone ~~to~~ to my saloon. As it approached
the shore I saw a bundle of
native spears and a stuffed
Porcupine or "Munit" placed in
a prominent position on the bow and
as they landed I found they were brought
me by Egebut who has given some
goods to trade for me in the specimens
line. The mounds were some 46
spears and arrows several seal
skins and a lot of wampum.
About 1200 Medfish were obtained.

Aug. 15 -

Alexis returned in the morning
bringing a number of ducks & geese.
The fresh water ducks are nearly
done moulting and are nearly
all going now but the wild
ones are still pinionless.

Alexis reported that he saw a
female walrus and saw on the
coast but he was not able to catch it although
within a few yards he was unable to

Aug. 15 Continued -
Went to Whale Is - about 1 1/2
miles from the Redoubt in
my bidarkie in the P.M.
while trying to land on a small
rock close under the precipitous
side of a small rocky
point beyond the Is. when
quite a sea was running
my bidarkie was upset
and I found myself ~~clung~~
hanging to the bottom and
making desperate efforts
to keep on the surface -
Having on long skin boots
which fill with water
it found it extremely
difficult to get to the
rock and I coincident
myself fortunate in not
making a call on the
fisher. I succeeded in
forcing the boat from under
and securing my gun
which was floating prominently

about and warming the water
and my clothing I proceeded
with collecting the main
object of the trip being to
procure more of which I obtained
more on that trip than had
ever been collected previously.

to get them. On his way back
he obtained a pair of seals
which I obtained from him
for 10 bars of lead - he retaining
the flesh. A peculiarity about
the natives is that although you
may employ them to hunt for
you and furnish ammunition
and pay for his time yet should
they kill a seal or caribou or
any fur bearing animal this
is their private property and
must be paid for in addition

Aug. 16 -

The day was occupied in work
for the specimens on hand
In the evening a bidarra
sail was observed coming from the
Canal and soon the company's
flag was seen floating from the
mast. As they drew near under
an immense sail, although
a strong wind was blowing,
the natives on board commenced

giving salutes from the spot
guns. Seeing the people out
looking at the boat all the
dogs in the redoubt became, as
usual, intensely excited and
rushed about with their tails
curled over their backs and
howling at the top of their voices
seemingly so delighted that
they could scarcely contain themselves.
As the boat was beached the dogs
rushed out for the bow and
crowding around raised such
a din that scarcely a word could
be heard. The boat proved to be
from Anvik with the coast trader
Mondrick aboard with a
lot of supplies and a couple
of Russians.

The trader reported the arrival
of Bishop Segner at Nulato
and said he had come down
in 5 days from Anvik. He
also reported that another trader
from the mouth of the Yukon would

arrive tomorrow.

Aug. 17 —

The bidarra came in
while we were at breakfast.
A hard wind blew all day and
very little was done. But
a long chat with the trader
and innumerable pipes smoked.

Aug. 18 —

Nothing occurred of interest
except a visit from one
of the traders from the opposite
shore.

Aug. 19 —

During the afternoon
Mr. Neumann, one of the
traders, ~~on~~ visited
the opposite shore in the
Whale Boat as we drew near
the wharf we were surprised
to find a strange bidarra
there and on inquiry learned

that it was from King's Is.
near Cape Prin. of Wales. They
had seal skins attached along
the sides which in calm
weather were left hanging
inside but when it becomes
rough they are raised and
strong sticks are attached
to the skin on the inside and
to the frame of the boat in
order to keep the sea from
breaking over the boat.

Among the new arrivals was
Agum-a-pick - who appears
very friendly.

Three seals were seen as we
approached the shore.

~~Aug. 2~~ -

My man Ah-xis who was
started hunting to Kumi-
last evening was here
waiting for clear weather.

~~Aug. 4~~

Soon after we returned
the Bidarra came over and
stopped at the redoubt -
the natives asking permission
to sleep in some of the out-
houses as the rain made it
uncomfortable in their tents -
permission to sleep in
the bath house was granted.

Aug. 20 -

The natives brought their
dried fish, seal oil &c.
to trade in the morning
and it was amusing to
watch them barter for
the goods they desired.

One man would come in
with some dried fish and
throwing it on the floor
would stand as unconcerned
as though he had no interest
in the proceedings until
the trader would ask
Chevo to tell when he would

name the articles he wanted
when the trader would show
how much he would give (i.e.,
the usual price) but instead
of accepting these natives from
the north almost invariably
refused at first and begged for
a larger price and in
some instances took their things
away. Perhaps after an hour or
so the same man would
come in with something else
he wished to trade and so they
continued making an exceedingly
long winded affair out of every
bargain. After a large amount
of talk a water parkie was
secured for me at about a
cost of 50¢.

The cause of the difficulty in
trading with these northern
natives is that a great many
of them do more or less
trading with them and they
pay almost anything for

charge for their goods and
thus give them an exaggerated
idea of their value.

Aghemish stated that
a Mahlemut had been shot
a short time since by a
Ko-yukore Indian north
of Kamalak - while deer
hunting.

During the day a number
of drill bow (loony) and various
ivory carvings were brought
me by the natives to trade some
of which were very good.

These natives wear enormously
large labrets made generally
of some stone or mineral.

One was of flint made
of coal (^{Bituminous} ~~sublimite~~) and a
number were seen made
of quartz crystals ground to
the following size & shape



Egeuluk who obtained a collection of Ethnological specimens for me at Umanak a short time since announced his intention of going with Agiassiak to the neighborhood of Cape Por. & Hall and wished some goods to get me specimens so I taught him how to prepare bird skin and giving him about \$25 worth of stuffs started him off - His people live in that vicinity and he will remain until sometime during the winter when he will return. The bidarra started on its return trip during the afternoon.

Aug 21—

Nothing of note - The Indians
from the Yukon are getting
poor -

I have made arrangements with
them through Mr. [unclear]
head Agent of the A. B. C. Union

to get me specimens,
principally ethnological
though a Russian Kamloff
from Kuthik at the mouth
of the Upshoon promises
to send a three-hole bidarkie
load of ~~comparative~~ ^{comparative} ~~good~~ ^{good} ~~specimens~~ ^{specimens} during
the fall-

Aug. 22-

Egorka one of the natives brought me a lot of fringe pit or new today with two young ones
year & *Virena satini*, one
Heteractes vicinus, and
A.C.B. and many besides.
Several commoner birds,
Passer vernalis saxorum and
Plectropterus alpinus are at present
represented by but a few
individuals the majority
having left latter in small
flocks some two or three
weeks since.
Weather here is very

abundant in the woods
about the Fort. The swallows
left about 10 day ago, now
only three or four are about
the Aboult.

Ruddy duck is also rather
scarce nearly all left over
a week ago.

Aug. 22 two specimens of
Helmuth's Vulture were shot
near the Aboult also several
Yellow Warblers and a spec. of
Black-poll " was seen in the
garden. On the 18th an unpaired
half grown Som. & Nigra was
brought in by the natives and
~~seen~~ on the 21st some spec's
of Som. ^{fischeri} ~~sp. 1~~ with the
wing feathers ^{unworn} ~~unworn~~
from the summer moult.
Also a spec. of O. trichoptera in
the bill of which I made a
sketch. Aug. 23 I shot a
spec. of P. pubescens from
a staff projecting from one of

the bastions.

Aug. 23-

The traders left with
a fair wind for the mouth
of the Yukon.

A bidarra near its
immense spruce of Canoe
with a motley array of
far clad nations with their
guns and various goods
skulls makes a sight
well worth witnessing
and one involuntarily
compares them to the
Armenians or more
appropriately to the hardy
seamen on their
adventurous voyages.

Aug. 24-

Some bidarkies arrived
from the coast toward
the Yukon to trade.

The only boat of interest

Aug. 25-

A curious Sylvia, numbering
Hemlock's Warbler in some
respects and differing in
others, was brought me today
by a native boy who shot it
on the opposite shore.

In the evening a native
brought a specimen of *Phalaropus*
lignatus the same I have
obtained here also a partly adult
Ardea herodias and a specimen
of *Canis lupinus* in
full plumage.

Aug. 26-

We are anxiously looking
for the arrival of the steamer
from the upper York River
which is due some days ago.
The monotony was relieved
by a visit from Mr. Hancock
from the other side who
came over in a bidarkie.
This bidarkie was brought from
Nunavut Is. and is quite

different from those used
here the following is a rough
sketch of one of each



The Nunavut bidarkie is also
noticeable for its breadth and
shortness and the large size
of the hole.



St. Michael's bidarkie

Mr. H. informs us that a
rumor had been circulated
among the natives here that
some natives in the vicinity
of C. P. of Wales had committed
some theft upon a schooner
there and damaged her to
some extent and that after
she had left a large three
masted vessel came on

and killed 13 natives in retaliation.

A wreck is also reported along the north coast and from an informant that it may be the vessel belonging to the company as she is long overdue from a trip to that portion of the coast.

Aug. 27. Monday
Nothing of interest occurred - remained at the Adoubt all day.

Aug. 28
Some natives came from up the coast one of them bringing me a Kingfisher obtained at Kigiktoiwuk.

— Aug. 29. A hard wind from the N. brought the other company's vessel back much to

our relief. The wind blew 60 m. per hour at 11 a.m. which was its maximum.

The note of the 26th regarding the killing of the natives at Cape Ing. W. is confirmed.

This vessel has been up to Point Barrow where only two of the 16 whalers wrecked last year are to be heard of - only 69 men left there only 2 were saved.

A successful season is reported for the traders here. Large quantities of heavy Rifles, Cartridges and Whiskey and such contraband articles are being traded to the Chukchees and by them are brought across the strait and sold to the natives on this side.

Aug 30—

No new developments,
went on board the vessel
to lunch. They will be
here several days and
we can send letters
by them so have work
on our hands.

Aug. 31—

Wrote letters home and
to Prof Baird.
A cold rain set in
about 7 A.M. and continued
all day.

About noon some men
returned who had been
gathering wood on the
other side of the Is
and brought me the
following birds:—

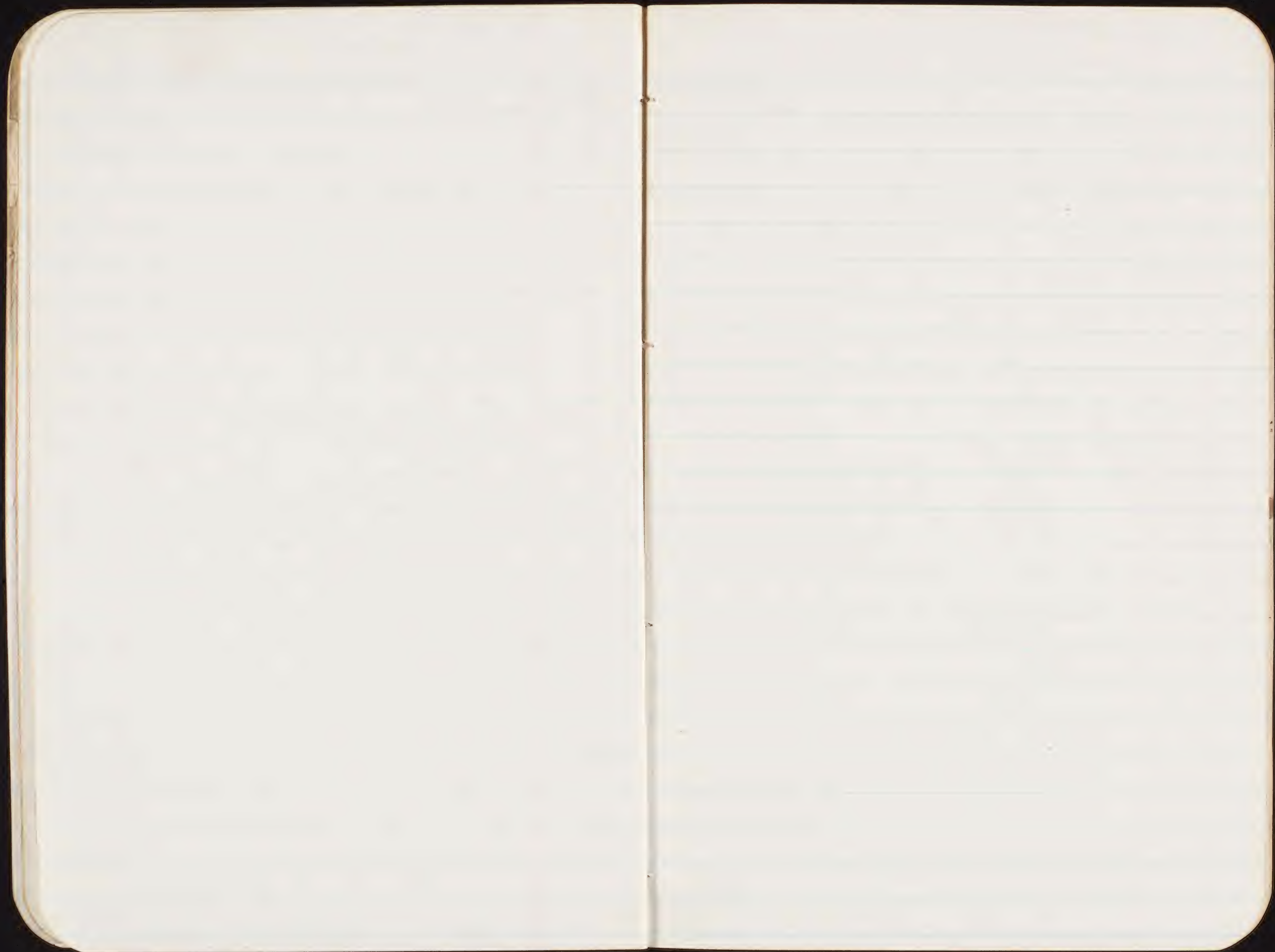
2 *Streptopelia*, 1 *Phasianus*
meunieri, 1 *Basileuterus* (young of the year), 2
Merula (either *Merula costae* or *Merula*).

or a specimen of the fauna
of the Is.

September 1877—

— St. Michaels

Sept. 1—



Sept 24-

Remained about the fort
all day - Nothing of interest
occurred.

Sept 25

Alexis, my native trader
came in the evening asking
for more goods and appears
quite happy because he has
so many goods to trade with
and said that the natives did
not want to trade with him
he had no more things. He
appeared to think me ignorant
to giving him a large supply
and was because I doubtless
thought of it as he was in his
imperfect English an account of
his good behavior from the time
he was a little boy, so I finally
gave him and his people some
other articles. In the evening
he remained with me
and I asked him about

the Eskimos the remains
which are found at times in the
Mts. & on the tundra here, he
said the natives did not have
any stories of ever seeing
them alive but that they thought
they live at present in a
large hole under the ground
and that now and then one strays
away and comes up to the
surface and after snuffing
the air he dies and in consequence
his bones are found as small
white bones or in depression
in the ground.

Sept. 26 - Nothing of interest.

Sept. 27 -

In the morning Messrs
Kelcham & Waldron from the
other shore came over and
remained to dinner afterwards
I went back with them to
purchase some traps & to trade
with the natives, returning
home in my birdskin.

I ~~found~~ saw a great many
geese flying north along the
coast and also a flock of about
50 swan all moving toward the
North, Asking the natives I was
informed that they go about
15 miles north of here around
a point and then follow the
course of a small river and
from there to the interior
and over to the interior of
Brit. Columbia then southward.
When I came back the natives
I found the gentlemen of
the R.C. Co. were waiting for
me on the beach with
the news that two Makluk
Esk. had been caught
near to Redoubt during my
absence and that I must
hurry if I wished to see them.
I found them almost pure
white, large, heavily built
animals.

Sept. 28, 77

Began making preparations for a trip up the canal after Jace having arranged with ~~me~~ the gentleman at the Redoubt to take my observations during my absence.

Within the last few days a high board fence has been built around the fort to serve as a protection from the northern natives who are inclined to make trouble during the coming winter.

Sept. 29,

Remained about the Redoubt nothing of interest occurred. An alarm is going about among the natives that the Koyukon Ingalik have massacred the natives living at

Unalakleet.

Since this I began to approach the Agent of the fur company has commenced fortifying his station on the opposite side of the bay.

Sept. 30.

Made my preparations and started at 3 P.M. on my trip with four natives in the Whale boat. Went up the Canal about 4 miles to a camping place and stopped for the night.

The tent was occupied by myself and three natives two making a shelter out of the boat sail. During the evening the men amused themselves telling stories, joking and singing their

"ing-i-yah" in a ~~base~~
monotone and rather
musical.

As the night was
~~cold~~ than we had anticipated
and provided against
we were chilled through
and the natives smoke
now and then and asked
each other with chattering
teeth if they were cold.

Oct. 1, 1877

Arose before day break
and we used the men
who soon had the Chy-nik
boiling and a draught
from its contents put
all to rights again
and we started on our
way with a fair wind
and made good time
for about 5 miles then
stopped and made Chy
and did some skimming

for game with very
poor success
Golden plover, a few duck
and a very few geese.
(*Branta hutchinsii*) being
all we saw with the
exception of a few *Luzon*
~~*stercoraria*~~ ^{*musculata*} and other
small snipe
Just before we started
again two bidarkies
baked together each
containing a man and
on a platform of board
hold goods on behind was
seated a woman
In front was a mast
about 7 1/2 feet high
upon which was hoisted
a sail of seal gut about
8 ft by four feet when
in use in the tortuous
channel made sailing
feasible. Travelling
along the bank was

a native dog the pet
of the woman.

We soon put off and
with all sail spread
went along at a brisk
rate soon over taking
the *Fidashies* and leaving
them in the rear.

Upon this the dog
transferred his allegiance
to us and ran alongside
for some distance always
keeping as near as possible
and in consequence kept
in the soft mud along
the water's edge which
evidently tired him greatly
and the little fellow
would then swim to
the opposite shore
and try the mud there
then return after a short
distance. Soon he commenced
lapping behind and after
a few desultory attempts

to keep alongside he
placed himself on the
bank and relieved his
feelings by a mournful
howl.

About sunset we
reached our camping
place at the mouth
of a river about a
mile beyond the canal
called the *Kaguk-puk*
meaning ~~place of the river~~
~~the river is about a mile~~
~~from its mouth~~

Game was more plentiful
here than we had yet
seen it, the hoarse
notes of numerous
swans ~~was~~ heard
from the lakes in low
and ducks were more
numerous.

An eagle for *Talpo hys*
was seen at a distance
and the abundance

at ~~Lagopus~~ ^{Yukon} ~~Alaska~~
with the snow topped
mountains at a short
distance made the scene
more arctic than the
temperature which was
about 38 small ~~Arctic~~
Alaskan not a standing
tree or bush was in sight
yet the border of the river
and the surrounding
tundra for miles was
covered with logs scattered
either ~~in~~ singly or even
in ~~rows~~ ^{rows} ~~two or three~~
feet deep lay ~~properly~~
about. ~~Wood~~ is drifted
down the Yukon and stranded
here during high tides this
furnishing the inhabitants
all along the river the
sticks of the coast with
more or less of this valuable
stick

As we were preparing camp
a small Baidarra canoe
into the mouth of the
Alaskan and seeing our
tent the natives on
board kept up a continuous
fusillade until they
landed near us and
my natives were also
very anxious to ~~shoot~~
but were restrained.

The new arrivals proved
to be the men of ^{an} old
Aleut who lives at the
mouth of the Yukon on
their way to the Redoubt after
trading goods.

During the evening I
obtained 4 fine White fish,
called him "Heldman",
for a box of soap.

During the evening my
man Alexis painted
out the "Milky Way" and
said the natives

said it ~~was~~ is the
track made by a man
with snow shoes on, and
a closer look showed
alternating patches of light
~~color~~ light which showed
this fancy very applicable.

Oct 2 -

Started early in the
morning up the river
stopping at intervals
shoot, obtained ~~several~~
reed and ducks but
found them very few.
In the afternoon went
into camp about 8 miles
up the river which we
found very crooked winding
and only about the tundra
+ sending off numerous
small branches.
Up this river the tide
flows the entire length
as far as we can see with an

average rise fall of
about $3\frac{1}{2}$ feet.
The tundra here is very
level sloping slightly
toward the numerous
small watercourses. The
presence of driftwood here,
about 4 miles from the
coast, although in small
quantities compared to
the amount near the mouth
shows that during high
tides the entire tundra is
covered with water.
While passing along the
channel examination where
the water had undermined
the bank shows for a
section of about 4 feet
black fine black soil
largely made up of pebbles
matted and in some
places decaying logs were
found buried from one
to $2\frac{1}{2}$ feet beneath the

surface with a thick
layer of moss and grass
on the surface above.
These logs were in a sufficient
state of preservation to
be used for fuel
had they been dry but they
exposed to the air had
cracked them badly.
The large amount of
drift wood thrown down
here during the spring tides
combined with large masses
of earth transported from
the sea and water courses
attached to blocks of ice
so much toward raising
the surface above the sea.
Often a ton or more of
earth & gravel will be found
forming a slight mound
on the tundra marking the
last resting place of some
wandering ice cake.

October 3-4
Finding game scarce I
determined to return
to the Redoubt Camp
at the mouth of the river.
In the morning started
at sunrise and a fair
breeze blowing I determined
to sail around St. Michael's
Island. Stopped at 11:30 at
the native village of Sletu
for Chy. Was received by
Ani a native called
McKetka and went to
his house for Chy. Before
dinner he pressed me
to take some Inca which
I tried, then some berries
were brought in the only
Ching boat the house offered.
These I found were a
mixture of Heath berries
& Cranberries and were
rather pleasant eating.
But when a kind of

creamy compound of
seal blubber and milk
was spread & felted
upon to refuse.

Looked for some time
these and a few ethnological
specimens and went on
my way. A favorable
breeze afforded us an opportunity
to sail a short distance
when the ice again came
in play.

Just before sunset we
approached Whale Is. off
the Reloubt point and
as we were passing
slowly along several Belugas
came playing about us
thrusting the top of their
heads out of the water and
with a slow puff threw
the air out of their lungs
then rising up for an
instant they would slowly
bend down their heads

and the smooth white
surface of their back would
be visible for inches out
of water as they went
down.

We soon rounded the point
and landed at the Reloubt.

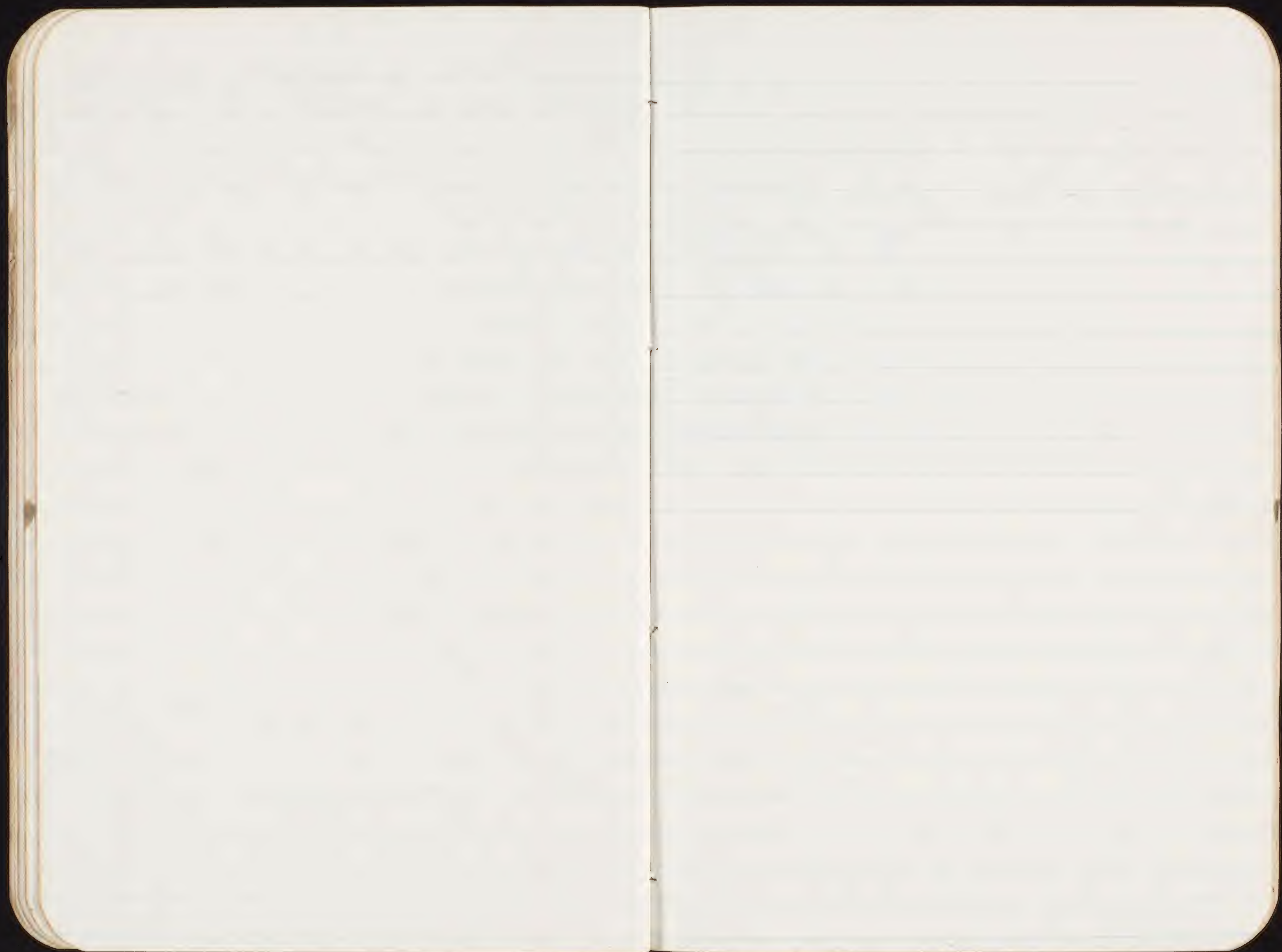
Oct. 5 -

Spent the day in getting
matters arranged again
after my absence.

Oct. 6 and 7
Nothing of interest
occurred.

Oct. 8 -

Excessive light snow
squalls keep about 32
F. nearly all day -
nothing occurring
of interest.



Oct 16 -

At 8 A.M. a bright halo was observed encircling the sun, the sun was at about 10° above the horizon but upon appearing again about 11 A.M. a second halo was seen but only about two thirds the size of the first, which was about 45° in diameter. The peculiar linear formation of haze mentioned before was again observed having its nucleus in the S.W. horizon but the appearance was far less distinct than when observed before.

Oct 17 -

Light snow in the A.M. At 9 A.M. my collector Alexis returned from Repeteknek came and showed me and our dog admitted brought in a bag full of various ethnological specimens. Snow-shoes, spears, bows, arrows, drills, fish skin bag, knife, and various other things of interest. He states that he went as far as the mouth of the Kalamaitok returning to Repeteknek on snow shoes the same day. He also says that many house traps along the coast there, while here it is but one or two.

Oct 18 -

Light snow in the A.M. and remains nearly all day but subsiding in the P.M.

Oct 16

At 8 a.m. a bright halo was observed encircling the sun, the sun was afterwards observed but upon appearing again about 11 a.m. a second halo was seen but only about two thirds the size of the first, which was about 450 in diameter. The peculiar linear formation of these mentioned before, very common, passing its nucleus in the E. & W. horizon but the appearance was far less distinct than when observed before.

Oct 17-

Light snow in the A.M. At 6 a.m. my collector Alexis returned from Repkhtounek came and asked me and one being admitted brought in a great number of various ethnological specimens, snow-shoes, spears, bows, arrows, drills, fish skin bags, kootie, and various other things of interest. He states that he went as far as the mouth of the Colusa R. returning to Repkhtounek on snow shoes the snow being knee deep along the coast there, while here it is but a inch or two.

Oct 18-

Clear except in the A.M. and remains nearly all day comparatively

which I have taught him
to do as well as I can.
A heavy rain continued
during the morning morning
during the P.M. by a sticky
snow freezing in the eve.
I asked about the
clouds and what the natives
thought they were and in
part explanation he said
they thought they remained
there the morning coming
up when they wished to
rain or to cover the sky
going back again when
rough.

I also asked about the
native idea of the formation
of the mountains and he
told me that a long time
ago the ground was ~~all~~
perfectly flat and that there
came a flood which covered
it completely, drowning
many people and nearly

all the land animals
but that a few each were
saved by ascending a
single high mountain
of which was on the
tundra that the only
people who were saved
were a few who got into
their birch canoes in time
and were subjected upon
fish which they caught with
flotation rods and that
finally the water
currents formed high
ridges by cutting away
the ground and thus the
mountains were formed
and as the water cut
deeper it gradually
receded until the people
landed on the mountains
and lived there until the
water subsided when
they returned to their
~~former~~ former homes.

places and that the
caribou came down
with the other animals
and multiplied and spread
rapidly so that the people
thus repopulating the
country again.

Oct 19 and 20

Nothing of interest occurs
Light snow falls and the
weather becoming slightly
colder the thermometer
ranging between 25 and 30.

Oct 21

A strong wind from the
north blowing the fog off
the coast makes it appear as
they would in brisk
circulation and under
morning about outside
very strong weather.

Oct. 22-

Ice is forming quite plentifully
in the bay. The temperature
of the water is 40 fahr.
The minimum thermometer
+10 for last night.
Ice is already from six to
eight inches in depth on the
interior lakes.

Oct. 23

A short snow storm
during the morning
saw a pair of *Parus
carolinensis* flying along
the coast on the 18th.
A pair of *Thalassidroma*
were at first in a pool of water
near the shore but they were
not I observed the other.

On the 20th several *Parus*
provincialis were seen
probably the last of the
next year.

Oct 24

The natives took up all their seal meat yesterday as the ~~ice~~ ice is too plentiful to melt them.

Cheris informed me that Rock Crystal is made in ice. that during the winter it becomes solid in the interior of large pieces of ice that a small cone becomes solidified to such an extent that it does not melt with the ice but sinks and is washed ashore. On a specimen ^{in my possession} obtained from a native, he pointed out its water worn sides in proof of his assertion and said that they were never found anywhere but on the beach.

Oct 25

Falling of a storm. Clear for a few days in the morning but clearing during the afternoon.

Oct 26

Thermometer down to $+46^{\circ}$ F. Fine misty snow fell during the evening. Wind from the N.E. light.

Oct 27

About 3 inches of snow fell last night covering the tundra and the surrounding hills.

Oct 28

Natives crossed the ice which is several inches thick near the shore.

Oct 29

Temperature rose in the am. and it thawed in several places. A fine sheet came

in the am. and in a
fog in the morning.

Oct 30 -

Shawdin this shade most
of the day and in the evening
a misty rain commenced
which ended in snow.

Oct 31 (The weather is very fine)

The warm weather continues
and the snow is rapidly leaving
the hills exposed again.

The ice is honeycombed and
weak.

Nov. 1 - 1877 -

A large herd of deer passed
North of the place on the
plain about a few days ago.
Wolf tracks are reported as
being numerous on the
island and a few Stags
are about.

Nov. 2 -

Still thawing. The snow
only lies in small patches
and the ice is nearly all

gone. Such a long spell
of warm weather is very
unusual and is very
uncomfortable in many ways
than one. We are nearly
out of wood and can bring
none until more snow
falls. The ice is all gone but
a extremely thin coating
on the water which a
fresh wind would quickly
carry away.

Some natives were hunting
seals, on a belt of thick
ice formed along the
open water, this morning
taking their sleds
with them on small
sleds.

Nov. 3 -

Wind light from the North
The natives have transferred
their attention from sealing
to fishing and are taking
a great many Weasels.

through the ice.
 They make a small hole
 then erect a pole sticks
 to the windward upon which
 they hang a grass mat to
 keep off the wind and
 then sit on the ice and
 fish from morning till
 night taking from 10 to
 20 and even 30 pounds
 each. They have a pick
 to pierce the ice and a
 small scoop made of
 bone or bone and remain
 attached to a handle about
 four or five feet long to take
 the ice fragments from the
 hole from time to time
 and a short stick about
 3 1/2 feet long for a rod
 with a slender pointed
 stick to aid in lowering
 the line from the water
 as it is generally deeper
 than the pole.

The following figures represent
 1 the scoop, 2 the pole and
 line and stick.



Their boats
 are represented
 generally have
 several points
 and are made

so that when the fish
 is taken on the ice or from
 a single flap is sufficient to
 bring up the

Nov. 4

Sleds are passing back
 and forth among the hills
 all the time now.

Wind very high from
 the north.

Nov. 5

Wind still a gale from
 the N. Nothing of interest

Nov. 6 -
Wind a gale from the
north. Remained about
the redoubt.

Nov. 7 -
Took my first ride after
a dog team going from
the redoubt to the other shore
where we stopped for coffee
and then returned.

Very good time was made
and the day being fine the
trip was enjoyable.

On our return a lead bluge
was seen under the ice
by our parties.

Nov. 8 -
Wind very light and the
weather very fine in the
morning. We started on
a run to ~~the~~ on the pond
back of the redoubt.

On our return quite a
large flock of Algei the
pinnace was across

landing on the shore
along the track.

We made a sundial
and placed it by one
of the dining room windows
for easy reference.

Trived to make a camera
obscure from the back
of an opera glass but
failed to get a good
image outline.

Nov. 9 -
A high gale from the
south all day with
a slight fall of snow
in the P.M.

Nov. 10th and 11th Nothing
of interest.

Nov. 12th Blank -

Nov. 13 -
Went to the village (native)
in the evening to witness
an ung-i-yah but only
a few natives being present.
It was not much of a

success. Will never
a description of the egg
until a larger one is witnessed.

Nov. 14-

A fog prevailed during
the morning but cleared
away at 12 m. and having
recently constructed a
saw-dial we compared
our watch with it and
found we were an hour and
a half behind. Made the
necessary corrections.

It is now dark from 4
P.M. until 8 A.M.

A beautiful evening
the moon shining in
all her glory the
contrast being so great
that the sky appears black
except ~~where~~ for of the larger
star show.

Nov. 15

Some women came from
the other shore and said
a beluga had been found
in the ice near their
place. Upon this I
proposed investigating
the matter and the
Assistant Agent here
Mr. Lowmyer proposed
to take me out with
a dog team, taking rope,
an ax and my assistant
for about
arriving at the station
I obtained the services
of the woman who found
the beluga and we
started out on the ice.
After about ~~an~~²
mile walk we found
the beluga with his
~~back~~ belly exposed
through the ice.
He went to work and

in a short time had
him chopped out of the
ice but he was so large
that we found it necessary
to postpone taking him out
until more aid could
be obtained and continued
to the Redoubt.

Nov. 16 —

Through the kindness
of the Agent of the U. S. Co.,
the workman at the fort
Kamareff was sent to
aid in securing my
prize and accompanied
by 5 natives we went
after it.

Cutting him loose from
the ice that had formed
during the night a rope
was passed around him
and tied around a long
stick at each end of which
two persons took hold and
quickly craved the blubber

up on the ice.

To my gratification
he or rather she it being
a female proved to be
a large one measuring
11 ft. 8 in in length.

Being quickly transported
to the sled we started
in triumph for the
Redoubt and the specimen
was ^{put} stored in a large
warrior house to be preserved
upon. Mr. Cetchum from
the other side was here
and remained all day.

Nov. 17 —

My native Alexis
commenced removing
the flesh from the
blubber of which I intended
making a skeleton.
The bear was partly decaying
and eaten by the fish
or I would have had the skin
also preserved.

The body was a dull whitish
with a bluish tint.

The skin is composed of an
outer and easily decomposed
layer, beneath which is
a hard tough segment
about $\frac{1}{4}$ of an inch in
thickness. Beneath this
is a layer of fat a
trifle over an inch in
thickness after which the
muscles follow.

The vagina and anus ~~are~~
have a common opening
which looks like a long
slit, on each side of the
body and very near the

mouth of the vagina
the uterus divides into
two kidney shaped parts

commencing with the common
duct. I was unable to
learn more of the internal
anatomy owing to the intestines
being frozen into a hard

mass.

Upon my proposing to
him to chop the flukes
of the tail off with an axe he
hesitated very strongly and
said if he chopped any
part of the animal with
an axe that he would die
very soon.

This also tallies with a
superstition they have
that no native is
allowed to cut wood
with an axe during the
season in which they
hunt Belugas.

Nov 8

The remainder of the
flesh was removed from
the Beluga and ~~the~~ it
now awaits the finishing
process.

Nov. 14th and 15th
Nothing of interest except
that for the first time
this winter the thermometer
stands at -1

Nov. 21
Therm. - 3 last night
Reached +7 during the
day but a strong wind
made the weather very
chilly

Nov. 22 -
Therm. - 14° last night
and remained below zero
all day.

We have been amusing
ourselves lately by
solving chess problems
and in looking for the
first sleds which are
expected from the
lower Yukon a short time.

Nov. 23 -
Nothing of note.
Therm. below zero all day
and down to -18° last
night.

Nov. 24 -
One of the natives caught
a Cross fox on the shore
a few days since and
several Mus foxes have
been taken.
A number of Wolf tracks
have been seen in
the vicinity.

Nov. 25 -
Prepared some poison
for foxes and started to
put it out in the morning.
Mr. Neumann started for
a visit to the other side
at the same time and
was taken over in a
sledge about time as I
could see while going
across the ice on my

way, I went directly
south towards a pair
of small volcanic peaks
about 8 miles from the
foot. I crossed a small
~~over~~ ravine up the slope
and placed my ponies
in suitable places.

The ravine has a dense
growth of scrubby alder
in every sheltered nook
and these with a crust
on the snow just sufficient
to make bear meat weight
made walking anything
but pleasant. Otherwise
the day was fine.

The tracks of numerous
foxes and two wolves
were seen and numerous
mouse tracks of several
species and also numerous
tracks of the minute
Shrew found here in
abundance.

Ptarmigan were very numerous
but shy. Flying long before
I was within range.

I found numerous places
where they had stopped
the night before, always
in coveys and always
in an open space near
or surrounded by bushes.
Here they would nestle
into the snow making
a cup shaped hollow
just the size of their
bodies so that their back
would be just on a
level with the surface.
Each cavity contained
a little heap of snow
showing that the place
had been occupied all
night. In no instance
did I see a cavity
placed where it occupied
did not have an
unobstructed opportunity

to fly away in any
direction if alarmed
although dense brush
patches were plentiful
they were always avoided
evidently to give the grouse
an opportunity to escape
from a fox or wolf should
they be attacked.

No tracks or Hares were
seen until the foot
of the mountain was
reached when they became
numerous but no hare
was seen. The day being
well advanced I ascended
the nearest mountain
and was well repaid
by the view which was
very fine.

Off to the south west
~~the~~ an arctic sun was
slowly passing along the
horizon before it went
to rest and turning the

sky with a dusky red
reflecting back across
numerous low, snow-
covered peaks to the south
and south-west stretching
far to the east arose
still larger hills partly
obscured by a bluish
haze. To the right lay
a long expanse of tundra
dotted here and there with
black when the ice of
numerous lakelets
showed in sharp contrast
with the snow.
Meandering through
the tundra could be
traced a line of white
which marked the
"Canal" a tortuous channel
separating St. Michael's
island from the mainland.
About 20 miles in length
beyond this came the
Sea and a line of islands

of tundra until stopped by
the range of mountains
forming Cape Romanoff
40 miles distant.

Back of me lay all the
islands of St. Michael's in
view and beyond Stewart
Is whose rocky shores stood
out black and forbidding.
On either side of these
islands as far as the eye
could reach an unvarying
expanse of ice stretched out-
toward the sea. To the
north to my surprise
the black and rocky shores
of Capes Starby and Dubrigh
were distinctly visible
although at least 75 miles
away.

While on the mountain
a strong N.E. wind was
blowing at least 20 miles
an hour yet down 100
feet from the top the wind

from the same direction
was not over 2 miles per hour
and was blowing at this rate
all day.

The peak I ascended was
only about seven or eight
hundred feet above the sea.

It was of a peculiar
formation. The adjoining
sketch will give an idea
of a birds-eye view of it.
The S.E. side is much more
abrupt than the other
side.



The mountain is covered with a scanty coat of plants with a few bushes along ~~the~~ side. The hill as depicted is in the form of an amphitheatre with its opening towards the East.

The hills are formed of basalt & evidently from the outcroppings to be in a very fragmentary state.

Upon my arrival at the Redoubt I found the native cook had been out and secured a large Northern Hare during my absence.

They are fine animals with soft silky fur, entirely pure white except jet black ear tips and hazel eyes.

Tonight and tomorrow night an Eskimo takes place at Stettin's on the other side of the Island.

Nov. 26 - Reunited from yesterday's tramp.

During the afternoon some Nukleavits came in from the hills with some furs to trade.

Nov. 27th and 28th
Nothing of interest except a warm spell of weather which has lasted for several days with the thermometer only a trifle below freezing.

Nov. 29 -
Warm weather continues. *Oxyechus lineatus* is seen quite frequently in the woods about the fort.

Nov. 30 -
Finished my mountain work. We are on the look-out for sleds now from both north and south.

St. Michaels, Alaska
December 1877—
1st—

Fog and light snow
during the day.

Dec. 2

At 10 a.m. a mock sun
was observed about 20°
to the right of the sun
upon a cumulus cloud.
It was a peculiar
fuzzy lustre but not
very sharply defined.

~~Dec. 3~~ A peculiarly
about 10° was that
the sun had not yet
appeared above the horizon.

Dec. 4 with

Nothing of interest—
A faint aurora was
seen on the evening of
the 5th only a faint glow
however was seen.

Dec. 6 about 4 inches
of snow fell only a small
portion of which was caught

in the rain gauge owing
to the wind.

Dec. 7—

Light snow in the P.M.
A short time before dark
Agnapiait arrived from
Thualaklet with a sled.
During the evening he
produced some presents
he had brought among
which were some tobacco
for the agents and some
models of squirrels and
fox traps for me also
a kind of "dolas" with
eight ivory balls each attached
to a string of braided deer
sinews fastened together
at their extremities
with the balls hanging free
a loop in the end, the
cords for admitting the
third finger is used in
throwing the instrument.
He showed us how it was

used with the statement
that it ~~was~~ is used only
by the people who live
born which is on the
Kavay peninsula near
Cape Pr. Wales.

The missile is used for
killing geese and by a
suggestive auto-suggestion
he took the missile and
holding the balls carefully
in his left hand with the
strings straight and not
entangled, he then took
the other end and passing
his third finger through the
loop he commenced as though
watching the approach of a
flock of geese and then
straightening the strings
by drawing on the balls with
his left hand he suddenly
sprang to his feet at the same
time and with marvellous
rapidity ~~and~~ gave the balls

two rapid swings and
to our astonishment sent
them fully 60 yards into
the air with such swiftness
that their course could
scarcely be traced. As
they began to lose their
impetus the balls which
had heretofore kept a nearly
parallel course, spread apart
and commenced a kind of
gyratory movement and as
they stopped an instant before
descending the balls shot
out on every side then they
turned and fell to the ground.
During their ascent and descent
until within a few feet of the
ground the balls did not appear
to interfere with each other as
on picking it up the strings
were found in a most intricate
tangle that occupied a good
space for about twenty minutes
to undo.

The account of the balls was merely
for their direct flight. The donor
stated that when a bird was
struck by them that they
wind about the wings and
neck and bring it to the ground
at once.

Another very ingenious
contrivance for killing animals
he brought a model of
which the following figures
and description will give
an idea.



The main part (1) is a wooden cylinder
through which are passed a
number of strong, deer sinews,
cords passing around the two
cross bars of the rods in the
middle of the cylinder a
slit is cut and a strong piece
of bone, with an iron or
ivory bar in its outer
end, is used to and works as

on a hinge the end in
the cylinder is under the
cords which are parallel and
form a flat spring which
as the bone lever (2) is lifted
tend to throw it back again
with force. The lever 2 is
brought back to the opposite
side of the slit and kept
there by means of a pin
projecting from its side
as sketched the ivory pin (3)
is put into the hole in the
ivory block (3) and then
they stand at right angles
when the pin in the lever
is placed in the angle the
head of the pin (3) pointing
toward the cylinder; to the
head of this pin is attached a
string leading through the
slit in the cylinder and
attached to a piece of meat
or 5 or 6 other pieces of meat
are scattered about, the

trap is concealed in the snow
and when the bait is touched
the lever is forced and comes
down driving the spike into
the head of whatever is eating
the meat.

Agnapiak states that they
kill foxes, wolves and can
make them for robes and
even can kill a man with
one.

DEC. 8-

Agnapiak reports his
wife sick and that
he has not been able
to go out this winter for
furs and owing to one of
their superstitions none
of the natives men are
~~at~~ willing to enter his
house the women only
coming. He obtained
some goods upon credit
and the Agent here tells
me that although he

is a much feared ruffian
who has committed several
murders ~~yet~~ and who tries
to outwit and defraud
if possible in trade yet
he always keeps his
word and faithfully repays
whatever he obtains on credit.
About noon he left
for Umalakleet.

Dec. 9-

My collector Alexie has
gone to live in Kigik^{harney}
this winter. He left on the
~~8th~~ taking a few trading
goods. And will collect
birds there during the
winter.

A fog prevailed during
the day which owing
to the cold was rendered
visible in the form of
minute flakes of snow
or rather in small fog
crystals.

Dec. 10 —
Although the thermometer
was below zero nearly all
day yet the fine snow
fog whose crystals were
so minute, that the
sun had weight
enough to sink slowly
down, kept the sky
exposed all day.

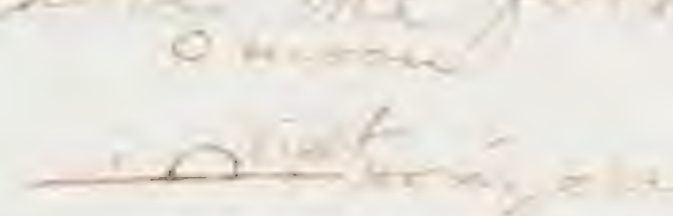
Dec. 11th Slight snow
fog in the morning.

Dec. 12 —
Thermometer below zero
all day.

At 1.30 P.M. two bright,
red-tinted sun dogs were
observed, each about 25°
to one side of the sun.
Lucid spots being oval
they were about 50 yds
long and about a yard
wide and were standing
at right angles to the
horizon their lower ends

appearing to rest upon the
ground three miles distant
from the observer.
Their greatest intensity
of color was in the middle
line near the top. No
colors but a reddish was
seen. Although no mist
was evident when I
stood yet the landscape
was by "the observer behind
the dog".

During the afternoon a
brisk wind blowing started
the snow to flying and
the landscape was obscured.
The moon being very bright
a peculiar phenomenon was
observed. Directly behind
the moon with its base
resting on the earth was
a half circle of light
like the following figure.


This light was
quite bright

and gave much the appearance of a fire upon the ground when seen in a fog, the intensity of the light being greatest at the center upon the ground and diminishing toward the outside. The hemisphere appeared about 20 yards in diameter and kept its intensity and position following the moon all night.

Dec 13 -

Linear haze formation was formed after noon but disappeared in the evening. High N. wind all day.

Dec 14 -

Thermometer - 21° during the evening and during the morning of the 15th fell to - 24° the lowest it has yet reached.

Linear haze formation at

2 P.M. from E. to W. -

In the morning Messrs. Bost and Isaac Masters for the expedition company came over and said they arrived at their company's station on the other side of the bay three days ago.

They are the first arrival from the vicinity of Uluksu or in fact from the Yukon this year.

Dec 16 -

Just at dark the dogs about the Redoubt began barking and ran down the track. We all went out and discovered three sleds approaching rapidly over the ice with a man running ahead of the dogs. The sled came up to the port with a rush and amid great excitement among the dogs 15 or 20 boxes

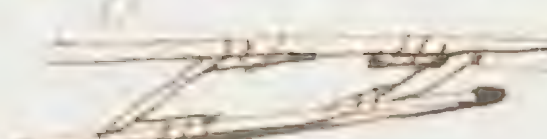
one of the companions
traders Rojermiroff who
has come from Thula to
with his son, and two
Ingaliks bringing furs
and to take some goods.

— DEC. 17 —

The furs brought by the natives
were examined in the am.
Among them were a number
Red Cross foxes and two Black
foxes also several hundred
martens and mink with
an otter or two. The marten
present an almost endless
variation in color which extends
from a dark chestnut with
a black gloss through yellow
and yellowish brown to a rich
deep orange. In all cases
the long black hairs of
the back & sides are black
or nearly black thus shading
the lighter fur beneath.
Some of the martens were

only recently caught still
had the stretching sticks
stuck in them, their
peculiar and ingenious
make drew my attention
and I kept some for specimen.
The mouth of the marten is
not large enough to admit
a frame large enough
to stretch the skin and
as no incision must be
made in the skin,

The Indians surmount
the difficulty by making
the following kind of
a frame — 

 as put in the skin.
The frame it is fastened together
by a cross bar near each end
and these bars are partly cut
through them but and each
end of the cross bar being
cut so but and the ends
attached to the side piece
forming a hinge by means

of which the frame may
be nearly shut in the
manner of a pair of parallel
rulers.

Dec. 18

At 8 A.M. on looking to
the N.W. a beautiful
moon was observed
which fairly glowed in
its silvery lustre as it
passed along the horizon in
its circular course.
The deep blue black
twilight shadow in
that quarter forming
just the needful frame
to set off the silvery
lustre and brilliancy
of this body. Nowhere
have I seen such
magnificent moons
as here. Its brilliancy
is such that often only
a few of the larger stars

can be seen and I have
read moderate sized print
in the evening by its light.

Dec. 19

Egora was sent with
a sled this morning
to Pachtok at the Yukon Mouth
for White fish. During the
afternoon

Some men came from
the Russian trader
living there.

Dec. 20

Nothing of interest.

Dec. 21

Kojinoff is getting his
trading goods and preparing
to start back to Khatanga.
I gave him some boxes
ammunition and
a jar of Carbolic acid
water to get me some
specimens. He appears
to be quite an intelligent
young fellow (a half-breed)

or Russian note)
has been to San Francisco
and has a pair English boots
dependent

Dec. 22 —

Kamkeff's men started
early in the AM. and
a little later Ekinik
started up the coast.

The south wind has blown
the ice from shore north
of town so travelling quite
easy made over the tundra.

Dec. 23 —

Mr. Lacey and I went
across the bay to the
other trading post after
luncheon and on the
way over my nose was
slightly frost bitten
but a vigorous application
of snow restored it.

Soon after our arrival
there a party of native
traders with their sleds

Came from the coast
and came to the same place
They proved to be from
the tundra at the mouth
of the Yukon.

After stopping to coffee
and having a chat with
Mr. Ketchum we ~~took~~
harnessed our dogs and
returned to the Redoubt
after also inviting Mr. K.
his assistant to come over
and spend Christmas
with us —

Dec. 24 —

Nothing of note —

Dec. 25 — Christmas
Morning opened with a
dull cloudy sky and high
wind. Later in the AM.
the snow commenced
falling slowly and
the wind filled the air with
flying particles so that
a person could scarcely

a few yards in advance
We made presents to the
Workmen and women
about the Redoubt and also
made a Christmas call
upon them.

The Russian workman
gave us an invitation
to a Christmas dinner and
as his house ~~was~~ is small
asked to serve it in our
dining room. We accepted
his invitation and although
the dinner could have been
improved upon yet the
good will with which it was
served covered many sins.

We were through dinner but
a short time when to our
surprise two sleds came
in and we recognized Mr
Andrich and his assistant
from Anvik. They reported
that Mr. Jensen from the
same place came to the

other side with them.
The Sledge carried them
to land their way while
crossing the bay and they
reached the shore some
distance from the
Redoubt then followed the
shore to the place.

In the evening our Christmas
dinner ~~proffer~~ was served
up and consisted of
Soup, ~~roast goose~~, Canned
Vegetables, Plum Pudding
etc. making a very fair
dinner to which full justice
was done by all present.

Dec. 26 -

Six sleds left the
station on the opposite
shore for the Yukon the
27th.

Dec. 27 - Nothing
of interest -

Dec. 18—

Mr. Kesner came over on a visit from the other side. Soon after he returned in the afternoon Mr. McQueston from the Tanana River arrived with a team of very large logs such as are used in Hudson Bay Territory. He was heartily welcomed and pined with questions on all sides until bed time.

Dec. 27—

Mr. McL. has been on a trip up the Tanana about 250 miles this winter. He tells me that the river is very shallow and can be waded in many places in the fall. It is about 400 yards wide at the highest point he reached. He says the country through which it flows is low and marshy in many

places with numerous ponds, lakes and sloughs, with scattered and small timber. To the south about 60 miles rises a range of mountains one of which appears to be very high and clouds out above and appears to bear a tall banner on one side.

Farther up than he went the river passes through a range of mountains.

He saw plenty of Moose track and food was plentiful among the nations.

He has no trouble with the Indians who have had but very little intercourse with the traders.

Dec. 30 & 31—

Nothing of interest occurred.

The weather remains mild.

January 1878
1st

New Year's day was passed with
no occurrence of note.

Jan. 2

In the afternoon a number
of sleds were seen coming
from the north and as
they drew near one turned to
the village and the other
came to the Recluse.

This proved to be Igaklak
who has been living in the
vicinity of Cape Darty this
winter. He brought a lot
of ethnological specimens
for me and tells me that
he has many more at home
which he will bring on
a biolanna in the Spring.

Jan 3

Early in the morning Mr.
M. Weston left for his
station. I found that the
other sled had come

yesterday brought Miss
my maternal collector
this morning he put in
an appearance accompanied
by his wife and said he had
been sick for some time
I gave him some salts
and he went to Etobicoke
probably to see his father-in-
law. To day and yesterday a
fine frozen fog has filled
the air and obscured the
landscape.

Every exposed object has
been covered with a fine
fluffy coat which gives
the appearance of every
thing being covered with
very white cotton wool.

Jan 4

During the early A.M. about
2 inches of snow fell and later
in the day the snow fog cleared
itself again although less
distinct than before.

Picus pubescens and also
two a specimen of *Sciurus*
hudsonius. Among the fishes
which are all from the Yukon
River were two specimens of
Lota maculata, which are
very abundant in the river.
Catostomus Hudsonius two
specimens, these are also very
numerous and are called
"trapska" or "pice" by the Russians.
Beside these I was surprised
and pleased to find a fine
specimen of *Thymallus* among them. This
latter our English cook says
are not common in the winter
but very numerous in the spring.
The species is distinguished by
numerous dorsal fin and is probably
the *Thymallus* of *p. clavi* & *Bole's*
Black & its *transversus* p. 5-77
The *Catostomus Hudsonius* may
also be *p. C. teres* and his
Calocottus is *Blackish*

have already named is a
species of *Hydrargyra*.
A cyprinodont bearing much
resemblance to some of the *Carassius*
Atlantic species.

On the 19th Hope was
left out in the
Afternoon. The *Reuben*
arrived with six sleds from
Andraeffsky, with four
and also bringing
a specimen of *Picus pubescens*
and two jars filled with
fishes among which are a
number of small *Catostomus*
Hudsonius, one *sox*, 1 or 2
small *Lota* several Black
fish (*Rapinodonta*) a species
of stickleback probably new
being different from those
found here, 6 number
of young white fish (*Argentinus*)
including several species
and some other unknown
fish which have not been

examined. He also brought
some spears, arrows and a bow
from the tundra below
the mouth of the Yukon.
And tells me his traders
are getting me ethnological
specimens on the tundra
and sea coast.

20th August

Charlie remained at
the Redoubt and I made
some inquiries about
the natives along the coast
with whom he has had
interviews and about
things about Shamanism -
It appears that one of the wishes
for things by the Shamans is to
visit the moon and various
ways are taken to effect this
object, one of which is to have
a sleeping person's nostrils
or "mian" placed about their
neck and then a lot of
natives take the other end

and drag them round the moon
for a considerable length of
time. Two notes shunus on
the lower Yukon have noted
the trip in this manner and
their obsequies took place
the next day. According to the
directions of the deceased the people
were to expect him the next morning
time but on being asked after that
time had passed whether he has
returned yet or not one of the
natives of the same village replied that
he had come out of the grounds a little
ways but that he was very small and
as there was no one with him but children
to go out even for him at the time he
had gone away again.

One of the main objects of their
desire to visit the moon is
that they think the moon to be
a hole through the sky and
when you get through it
you are plenty of deer, seals &c
which can be caught and

thrown down thus supplying
plenty of game below.
Charlie told of another belief
held by some of the natives
south of the Yukon mouth that
the Indians burn the bones
He also informed me that
the natives along the entire
sea coast make a practice
of putting the blubber of the
seal they kill into the water
through the ice with great
ceremony every winter.

Jan. 23rd

Charlie left early in the
morning.

Talyatuk arrived in the afternoon
bringing me some interesting
ethnological specimens and what
was also very acceptable for
us he brought deer which
his brother killed at Kegiktoiwia.

Jan 24

A curious fog had been
today under the following circumstances

Due to the intense cold the moisture
in the air became visible as fog
the thermometer standing far below zero
When I ascended the aneroid bar
in the morning on looking directly
away from the sun a white fog too
well defined was plainly visible apparently
forming just half a circle and touching
the ground about 75 yards distant.
When standing on the ground
no such appearance could be seen.
Jan 25th

The cold has crystallized the moisture
in the air and today it comes glowing
and washing down to the ground in
a mass of flashing diamonds in a perfectly
pure white sphere owing to the intense
cold. The sun is visible but the
cold is so intense that upon going
from a warm room into the open
one feels suddenly grasped by
an invisible force which causes
him to gasp for breath for a minute
or when breathing laughing gas.
The natives go about as usual and

It is not very cold

Jan 30 —

Saxe and his brother came today bringing some furs and a few ethnological specimens to trade. They also brought some *Sciurus* and *Sciurus hudsonicus* but so much was asked for furs that I declined to receive them.

Distinct mirage today which took many liberties with the landscape. By simply moving back and forth or jumping up and down the hills would appear to assume the most diverse shapes, changing in height and outline as though one would look at them through a glass containing many contortions and flaws. Pieces of ice would rise into perpendicular columns one instant then be flattened horizontally the next. Jan 31st

Saxe and his brother left this morning.

About noon Lammie boy

came from the other side with a sled load of ethnological specimens for me from the mouth of the Yukon.

Later in the afternoon Belkoff arrived from the Yukon River mouth.

February 1st

Big John and Lammie came across today for a visit.

At 3:45 P.M. the weather remained intensely cold on the last named date falling down to -52° Fahr. We were compelled to remain at home and I have been busily engaged in my reports for several weeks. The constant want of exercise tells me as lack of appetite and a general feeling of inertia shows. The days are becoming longer hours and we look forward with pleasure to the coming springtime.

Time slips by rapidly and we are aware of it. We shall have

the grass springing up and
the birds back again —

During the remainder
of February little interest
took place. The natives named
Colb. Fredrickson and a few
other traders were here from
the Yukon and nothing more
of interest.

March — 1878 —

The first two weeks of this month
were very cold; the rest of the
third week the weather became
very warm reaching 41° on
the 24th.

March 21st Kojanikoff arrived
from Uelato with six sleds.
His son Paul and Serooka a
native (Ingalik our former cook
came down bringing me
quite a number of birds
and fishes and a ^{amur} porcupine.
This was a queer looking little
animal with long black hair

a pig nose and long deer
like claws of feet.

Among the birds were about
a dozen Hudsonian Titmice and
Canada jays, Pine grosbeaks
were numerous, one arrow

breasting, one Hawk Owl and
one Snowy Owl and one fine
specimen of Legumin's Owl —

He furnished them with
(Gale "Serooka") with collecting
materials for birds and eggs
and instructed them as to
what was especially desired.

They are very doubtful about
getting the eggs of the Canada
Jay which they say conceals its
nest so that it can rarely
be found. It has eggs in
April ~~May~~ and if they are taken the
natives say it will cause very
cold weather.

Among the birds were also three
fine Water Buzzards which they
let me remain all winter

about open places in the small rivers. A native trader tells me they are very numerous at Ulukuk summer and winter.

They also brought a number of species of small white fish and several Grayling.

Leguminous Owl they say are very badly in the day time and may be taken by hand or by a noose on the end of a stick but is very shy during the night.

March 22 finished labelling the ethnological collection upon which I have been working for the past week. The number has risen to over 1200 specimens besides the considerable amount that is yet to come in from traders to whom I have given goods.

23rd Kopronikoff left about 8 a.m. and in the afternoon of the morning Charlie Peterson

arrived from Andraeffsky, he brought me a snowy Owl and some specimens of Grayling and white fish and told Mr. Munn and I that he had obtained over 20 masks for us from the tundra natives, two of them are so large that when in use they hang by cords from the roof of the Eskimo and the wearer stands behind with his head in it and simply swings it from one side to another or turns it about.

When he brought the masks he says the natives had just ended a dance and were burning the masks according to their custom and that whoever sold their mask had to bring wood to burn in its place.

The native shamans all along the coast and up the Yukon as far as the "mist" people extend have a great desire

to go to the moon when ever
anything unusual occurs
and in addition they say that
is when all the seals and
deer come from and if they
get them they can throw enough
to make good hunting again.
The Russian Priest from
Mission (here a short time ago)
said there was an eclipse of
the moon about the 13th of July
and that about the same
time some dozen or more
natives died from a throat
disease. Upon this two native
shamans, father & son, started
to go and see the man in the moon
to see what he meant by this.

Having such an epidemic
and what must be done to
stop it. After an absence of
several days they returned
and reported that they had
been nearly to the moon when
the old man became tired out

and the younger went on alone
until he was very near when
the man in the moon came down
to meet him and appeared
very angry and asked what he
wanted. He made known his
errand in great fear but determined
to brave it out. The man in
the moon informed him that
the epidemic was going to
kill a number of people and
then stop - but he was
determined not to let his
visitor return feet the old
man who was down below
begged so effectively for his
release that he at last
relented and the pair returned &
gave their ^{valuable} information to
the people. -

Charley Peterson gave an
account of the ^{meeting} ~~meeting~~ of a
shaman on the tundra south of
the Yukon - the natives were all
assembled in the Cashim.

and after putting on his parkie
and announcing his intention
to be burned and then to return
to them, he ordered a kind of
crib made by piling logs up in
a square with an open space
in the center large enough
for him to stand in, he then
named two men who were to attend
to the fire. He was then bound
and his large mask, reaching from
above his head to his waist
and entirely concealing his body,
was put on, he was then
carried out and stood up in
the center of the pyre and it
was set on fire. Then the assist-
ants called out that anyone who did
not think he was burning could
come and see. Some natives
looked out of the Caskine but
the masks of the shamans were
facing the Caskine concealing
the upper part and the wood
and the lower part of his length.

But the natives were satisfied
and returned after which no
one was allowed to come out
during the rest of the night.
The modes of ceremony behind the
scenes is that the shamans
pay their assistants a large
sum to keep silent about
what he sees. Then he swears
that as soon as the natives return
to the Caskine after he is
brought out he is to be released
and a log of wood substituted
for him and then he stands
behind his mask until the fire
is lighted in front and the
natives are called out and
as soon as they return he
reenters himself in the vicinity
until the early morning when
he returns and taking two brands
from the still burning fire
he moves quietly to the top of
the Caskine and sitting down
close to the gut skin window

in the center of the roof,
and which is always held
bulging outwards by the warm
air from within. He then
waves his five brands about
making a shower of sparks
at the same time. He keeps
moving his feet about over
the gutskin so that the natives
think he is walking in air. After
he thinks he has made a sufficient
sensation he descends and
enters the cashim from below
and so of course a big shaman.

March 25th

Just finished cataloguing the
ethnological collection obtained
up to date - the number
reaching between 72 & 13 hundred
specimens besides which
a considerable number is yet
to come in from various
traders native and white to
whom I have given orders.

The thermometer yesterday (24th)
stood at +41° Fahr. between 12 & 2 pm
much higher than it reached
last year until well along
in May.

The 31st of March was a
disagreeable windy snowy
day as was also the 1st of April.
During the first week of
April the temperature was
very mild the 4th & 5th & 6th
being especially mild keeping
in the vicinity of 35° in the
day.

On the 3^d a hawk was seen
skimming along close to the
ice over the bay.

About two weeks ago just
before sunset a Ptarmigan
settled on the roof of the warehouse
and stood surveying the yard
with evident curiosity until
a workman passed near when
it suddenly made off in a
flash at its own timidity.

Mr. Neumann, Asst. A.C. Co, at
the redoubt, told me that
the spring of '77 - just as the
snow was melting off, one
of the birds lit in the
middle of the court yard
only a few paces from houses
on either hand, but that it
had scarcely touched the
ground before it was torn to
fragments by an impetuous
rush of the Esquimo dogs which
were lying about and which
are always on the war path for
any living creature that they
are not familiar with.

April 4th Mr. Looney Asst. Asst.
at the redoubt, started for Peatlik
to see one of the Company's employees
who has been ill all winter
he was compelled to return
in a short time to obtain
snow shoes owing to the deep
snow on the tundra.
The 5th he started again

going via Stebens
On the 4th Agnassink a Maklunuk
of evil reputation of considerable
influence among a certain
class of the natives, came from
Nua-laklet to trade. He had
several sons with him and
from the party I obtained a
number of ethnological specimens.
On the 6th a native brought
in 3 snow buntings one of
which was the first I ever saw.
Was pure white except a slight
russet tinge about the head
and some black wing and
tail feathers.

Have been spending considerable
time on a native vocabulary
 lately, in company with Mr.
Neumann and find that the
many errors in published
vocabularies are mainly
excusable for to get a
majority of the words decider
correctly is almost impossible.

unless a great amount
of time and a considerable
knowledge of the language
about the disposal of the stores.

April 7th

Two sleds arrived from Nulato
for goods. The natives in charge says
that on the portage between Nulato
and the Yukon a considerable portion
of the tundra is free from snow and
that the change in climate is striking
between the coast and the country
a days travel toward the interior where
it is much warmer.

Mr. Neumann tells me that this
is always noticeable in spring and
that some seasons the ground is
almost entirely bare the other side
of the coast mts while on the coast
spring has scarcely been perceived.
In conversation with Mr. N. we
both remarked the salutary influence
upon the northern natives, that
has been exerted by the erection
of a high fence about the place.

Before this fence was erected
rumors were continually going
around among the natives that
Igagpiuk was coming during the
winter to take revenge upon us
for sending his relative the murderer
Kumigan down to San Francisco.
But since the fence was erected
last fall the suspicious natives from
whom we anticipated trouble have come
here but very little and when they
do come they leave their sleds and
dogs about 50 yds outside the
gate and often do not enter until
we go out to them and when
Igagpiuk comes and is sitting
in the room he is continually
nervous and watchful, the least unusual
or suspicious noise making him look
searchingly about as though anticipating
a trap. These Indians now come, do
their trading and go as soon as possible
instead of loitering about for several
days as formerly. Some time since
Mishkin the tyne of the village

Came and told the P.C. Cor.
agent that they had word that
the Cape Men of Wales were
coming here in summer to
take revenge for the killing of
some dozen of them last summer
by the crew of a vessel which they
attacked. He asked if the village
men would be permitted to
come into the fort to help defend
it saying that if these men came
down they would also wish to
kill the St. M. people as well as
the whites.

April 8th

Mr. Loring returned from Pootah
today - He brought ^{me} a few ethnological
specimens from Kamoff the Russian
trader there -

In the afternoon an Ingalik came
from the opposite side bringing
me a goshawk and a snowy owl
which were brought from Thuleto
by one of his traders.

The day is becoming very long

now, and today one could read with-
out the aid of a lamp from 4 a.m.
until 8 P.M. while twilight last
nearly an hour before sunrise and
after sunset.

Just before sunset tonight a
halo was formed on a misty fall of
snow flakes, only the upper half
of the circle was visible and at the
upper point was an indistinct
paraselia while a vertical bar extended
from the sun to the earth and on
which could be seen a faint warming
rain bow shades which seemed to
run in tremors and waves across
it.

Apr. 9th a very disagreeable
day. Two or three Ravens were
flying about the place all
day and in the afternoon
a little Corole boy brought me
the first insect of the season, a
beetle which he found on the side
of a house.

April 10th - thermometer down
to -15° last night and cold
all day -

11th

Therm. -17° last night.

Linear haze formed during the
middle of the day, foretelling a
change in the weather.

Yesterday and today were occupied
in painting (water colors) a picture of
the wankhine or tone cod so abundant
here. It was my first attempt at
fish painting but I made a very fair
representation.

12th

Clouds covered the sky during the
night and the temperature
rose to +22° at 9 a.m. and to 30°
later. A light snow fall
from 10.30 a.m. to

Lalga luk arrived from
Una laklik at 11 a.m. He brought
a few ethnological specimens for Mr. Neuman.
Cut my beluga skeleton into
sections ready for taking the meat

off - / 13th

Labelled and packed the collection
specimens - occupied the P.M. - arranging
this collection and felt relieved
when the task was accomplished -

14th

Weather still gloomy and chilly,
much as it has been the
entire month up to date.

My native Alexis came from
Stebens in the morning bringing
some ^{belugas} carcases and some axes
which he has been putting handles
to - The axes are a perfect model
of those found in the swiss
lake deposits especially one
which has the entire handle of
Reindeer horn. The two Ravens,
which made their appearance
about two weeks since, are
flying about every day.

The redpolls (*Regulus linarius* or
fulvus) which were about here
the entire winter up to the last
of Feb. left probably to the interior
where the ground becomes bare much
earlier than on the coast -
Several snowy owls have been
brought me lately some of which
are spotless white while one brought
in today is over half a dull brown
mottling.

April 15th

Nothing of interest - Temp. - 90°
last night -

16th

Temp. - higher than for some
time - Snow in the sun
during the middle of the
day - Two inches of snow in
the evening -

17th

Fine warm day up to 39°
in the afternoon - Cloudy
all day -

18th

Still warm +40° at 11 a.m. -
The snow is melting rapidly -
Spots show upon the tundra and
distant hill tops are changing
from white to black -

An Indian boy brought in
a Ptarmigan today with a
ruff of the brown spring
plumage around the neck

19th to 23rd

gloomy
and chilly weather nothing
of interest occurring -
Became warm and thawing on the
24th and 25th with a gale from
the S.W.E. On the 25th Day & came
from Umanakleet to trade
obtained a pair of Lynx skulls from him
See Vol II for 26th

